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I. GRADATION OF PUBLIC SCHOOLS.

WITH SPECIAL REFERENCE TO CITIES AND LARGE VILLAGES.

There is a large amount of physical suffering and discomfort, as well as great hinderances in the proper arrangement of scholars and classes, caused by crowding the older and younger pupils into the same school-room, without seats and furniture appropriate to either; and the greatest amount of suffering and discomfort falls upon the young, who are least able to bear it, and who, in consequence, acquire a distaste to study and the school-room.

The work of education going on in such schools, cannot be appropriate and progressive. There cannot be a regular course of discipline and instruction, adapted to the age and proficiency of pupils—a series of processes, each adapted to certain periods in the development of the mind and character, the first intended to be followed by a second, and the second by a third,—the latter always depending on the earlier, and all intended to be conducted on the same general principles, and by methods varying with the work to be done, and the progress already made.

With the older and younger pupils in the same room, there cannot be a system of discipline which shall be equally well adapted to both classes. If it secures the cheerful obedience and subordination of the older, it will press with unwise severity upon the younger pupils. If it be adapted to the physical wants, and peculiar temperaments of the young, it will endanger the good order and habits of study of the more advanced pupils, by the frequent change of posture and position, and other indulgences which it permits and requires of the former.

With studies ranging from the alphabet and the simplest rudiments of knowledge, to the higher branches of an English education, a variety of methods of instruction and illustration are called for, which are seldom found together, or in an equal degree, in the same

teacher, and which can never be pursued with equal success in the same school-room. The elementary principles of knowledge, to be made intelligible and interesting to the young, must be presented by a large use of the oral and simultaneous methods. The higher branches, especially all mathematical subjects, require patient application and habits of abstraction, on the part of the older pupils, which can with difficulty, if at all, be attained by many pupils, amid a multiplicity of distracting exercises, movements and sounds. The recitations of this class of pupils, to be profitable and satisfactory, must be conducted in a manner which requires time, discussion and explanation, and the undivided attention both of pupils and teachers.

From the number of class and individual recitations, to be attended to during each half day, these exercises are brief, hurried, and of little practical value. They consist, for the most part, of senseless repetitions of the words of a book. Instead of being the time and place where the real business of teaching is done, where the ploughshare of interrogation is driven down into the acquirements of each pupil, and his ability to comprehend clearly, remember accurately, discriminate wisely, and reason closely, is cultivated and tested,—where the difficult principles of each lesson are developed and illustrated, and additional information imparted, and the mind of the teacher brought in direct contact with the mind of each pupil, to arouse, interest, and direct its opening powers—instead of all this and more, the brief period passed in recitation, consists, on the part of the teacher, of hearing each individual and class in regular order, and quick succession, repeat words from a book; and on the part of the pupils, of *saying their lessons*, as the operation is significantly described by most teachers, when they summon the class to the stand. In the mean time the order of the school must be maintained, and the general business must be going forward. Little children without any authorized employment for their eyes and hands, and ever active curiosity, must be made to sit still, while every muscle is aching from suppressed activity; pens must be mended, copies set, arithmetical difficulties solved, excuses for tardiness or absence received, questions answered, whisperings allowed or suppressed, and more or less of extempore discipline administered. Were it not a most ruinous waste of precious time,—did it not involve the deadening, crushing, distorting, dwarfing of immortal faculties and noble sensibilities,—were it not an utter perversion of the noble objects for which schools are instituted, it would be difficult to conceive of a more diverting farce than an ordinary session of a large public school, whose chaotic and discordant elements have not been reduced to system by a proper classification. The teacher, at least the conscientious teacher, thinks it any thing but a farce to him. Compelled to hurry from one study to another, the most diverse,—from one class to another, requiring a knowledge of methods altogether distinct,—from one recitation to another, equally brief and unsatisfactory, one requiring a liveliness of manner, which he does not feel and cannot assume, and the other closeness of attention and abstrac-

tion of thought, which he cannot give amid the multiplicity and variety of cares,—from one case of discipline to another, pressing on him at the same time,—he goes through the same circuit day after day, with a dizzy brain and aching heart, and brings his school to a close with a feeling, that with all his diligence and fidelity, he has accomplished but little good.

But great as are the evils of a want of proper classification of schools, arising from the causes already specified, these evils are aggravated by the almost universal practice of employing one teacher in summer, and another in winter, and different teachers each successive summer and winter. Whatever progress one teacher may make in bringing order out of the chaotic elements of a large public school, is arrested by the termination of his school term. His experience is not available to his successor, who does not come into the school until after an interval of weeks or months, and in the mean time the former teacher has left the town or state. The new teacher is a stranger to the children and their parents, is unacquainted with the system pursued by his predecessor, and has himself but little or no experience in the business; in consequence, chaos comes back again, and the confusion is still worse confounded by the introduction of new books, for every teacher prefers to teach from the books in which he studied, or which he has been accustomed to teach, and many teachers cannot teach profitably from any other. Weeks are thus passed, in which the school is going through the process of organization, and the pupils are becoming accustomed to the methods and requirements of a new teacher—some of them are put back, or made to retrace their studies in new books, while others are pushed forward into studies for which they are not prepared; and at the end of three or four months, the school relapses into chaos. There is constant change, but no progress.

This want of system, and this succession of new teachers, goes on from term to term, and year to year—a process which would involve any other interest in speedy and utter ruin, where there was not provision made for fresh material to be experimented upon, and counteracting influences at work to restore, or at least obviate the injury done. What other business of society could escape utter wreck, if conducted with such want of system,—with such constant disregard of the fundamental principle of the division of labor, and with a succession of new agents every three months, none of them trained to the details of the business, each new agent acting without any knowledge of the plan of his predecessor, or any well settled plan of his own! The public school is not an anomaly, an exception, among the great interests of society. Its success or failure depends on the existence or absence of certain conditions; and if complete failure does not follow the utter neglect of these conditions, it is because every term brings into the schools a fresh supply of children to be experimented upon, and sweeps away others beyond the reach of bad school instruction and discipline; and because the minds of some of these children are, for a portion of each day, left

to the action of their own inherent forces, and the more kindly influences of nature, the family and society.

Among these conditions of success in the operation of a system of public schools, is such a classification of the scholars as shall bring a larger number of similar age and attainments, at all times, and in every stage of their advancement, under teachers of the right qualifications, and shall enable these teachers to act upon numbers at once, for years in succession, and carry them all forward effectually together, in a regular course of instruction.

The great principle to be regarded in the classification, either of the schools of a town or district, or of scholars in the same school, is equality of attainments, which will generally include those of the same age. Those who have gone over substantially the same ground, or reached, or nearly reached the same point of attainment in several studies, should be put together, and constitute, whenever their numbers will authorize it, one school. These again should be arranged in different classes, for it is seldom practicable, even if it were ever desirable, to have but one class in every study in the same grade of school. Even in very large districts, where the scholars are promoted from a school of a lower grade to one of a higher, after being found qualified in certain studies, it is seldom that any considerable number will have reached a common standard of scholarship in all their studies. The same pupil will have made very different progress in different branches. He will stand higher in one and lower in another. By arranging scholars of the same general division in different classes, no pupil need be detained by companions who have made, or can make less progress, or be hurried over lessons and subjects in a superficial manner, to accommodate the more rapid advancement of others. Although equality of attainment should be regarded as the general principle, some regard should be paid to age, and other circumstances. A large boy of sixteen, from the deficiency of his early education, which may be his misfortune and not his fault, ought not to be put into a school or class of little children, although their attainments may be in advance of his. This step would mortify and discourage him. In such extreme cases, that arrangement will be best which will give the individual the greatest chance of improvement, with the least discomfort to himself, and hindrance to others. Great disparity of age in the same class, or the same school, is unfavorable to uniform and efficient discipline, and the adaptation of methods of teaching, and of motives to application and obedience. Some regard, too, should be had to the preferences of individuals, especially among the older pupils, and their probable destination in life. The mind comes into the requisitions of study more readily, and works with higher results, when led onward by the heart; and the utility of any branch of study, its relations to future success in life, once clearly apprehended, becomes a powerful motive to effort.

Each class in a school should be as large as is consistent with thoroughness and minuteness of individual examination, and practi-

cable, without bringing together individuals of diverse capacity, knowledge, and habits of study. A good teacher can teach a class of forty with as much ease as a class of ten, and with far more profit to each individual, than if the same amount of time was divided up among four classes, each containing one-fourth of the whole number. When the class is large, there is a spirit, a glow, a struggle which can never be infused or called forth in a small class. Whatever time is spent upon a few, which could have been as profitably spent on a larger number, is a loss of power and time to the extent of the number who were not thus benefited. The recitations of a large class must be more varied, both as to order and methods, so as to reach those whose attention would wander if not under the pressure of constant excitement, or might become slothful from inaction or a sense of security. Some studies will admit of a larger number in a class than others.

The number of classes for recitation in the same apartment, by one teacher, should be small. This will facilitate the proper division of labor in instruction, and allow more time for each class. The teacher intrusted with the care of but few studies, and few recitations, can have no excuse but indolence, or the want of capacity, if he does not master these branches thoroughly, and soon acquire the most skillful and varied methods of teaching them. His attention will not be distracted by a multiplicity and variety of cares, pressing upon him at the same time. This principle does not require that every school should be small, but that each teacher should have a small number of studies and classes to superintend.

In a large school, properly classified, a division of labor can be introduced in the department of government, as well as in that of instruction. By assigning the different studies to a sufficient number of assistants, in separate class-rooms, each well qualified to teach the branches assigned, the principal teacher may be selected with special reference to his ability in arranging the studies, and order of exercises of the school, in administering its discipline, in adapting moral instruction to individual scholars, and superintending the operations of each class-room, so as to secure the harmonious action and progress of every department. The talents and tact required for these and similar duties, are more rarely found than the skill and attainments required to teach successfully a particular study. When found, the influence of such a principal, possessing in a high degree, the executive talent spoken of, will be felt through every class, and by every subordinate teacher, giving tone and efficiency to the whole school.

To facilitate the introduction of these, and similar principles of classification, into the organization and arrangements of the schools of a town or district, as fast and as far as the circumstances of the population will admit, the following provisions should be engrafted into the school system of every state.

1. Every town should be clothed with all the powers requisite to establish and maintain a sufficient number of schools of different grades, at convenient locations, to accommodate all the children re-

siding within their respective limits—irrespective of any territorial division of the town into school districts.

2. Should provision be made for the creation of territorial school districts, a gradation of districts should be recognized, and every district having over sixty children of an age to attend school, should be obliged to maintain a primary school under a female teacher for the young pupils, and provide a secondary school for the older and more advanced pupils.

3. No village, or populous district, in which two or more schools of different grades for the younger and older children respectively, can be conveniently established, should be sub-divided into two or more independent districts.

4. Any two or more adjoining districts, in the same, or adjoining towns, should be authorized to establish and maintain a secondary school for the older and more advanced pupils of such districts, for the whole, or any portion of the year.

5. Any district, not having children enough to require the permanent establishment of two grades of schools, should be authorized to determine the periods of the year in which the public school shall be kept, and to determine the age and studies of the children who shall attend at any particular period of the year, and also to send the older pupils to the secondary school of an adjoining district.

The extent to which the gradation of schools can be carried, in any town or district, and the limit to which the number of classes in any school can be reduced, will depend on the compactness, number, and other circumstances of the population, in that town or district, and the number and age of the pupils, and the studies and methods of instruction in that school. A regular gradation of schools might embrace Primary, Secondary and High Schools, with Intermediate Schools, or departments, between each grade, and Supplementary Schools, to meet the wants of a class of pupils not provided for in either of the above grades.

1. Primary Schools, as a general rule, should be designed for children between the ages of three and eight years, with a further classification of the very youngest children, when their number will admit of it. These schools can be accommodated, in compact villages, in the same building with the Secondary or High School; but in most large districts, it will be necessary and desirable to locate them in different neighborhoods, to meet the peculiarities of the population, and facilitate the regular attendance of very young children, and relieve the anxiety of parents for their safety on their way to and from school. The school-room should be light, cheerful, and large enough for the evolutions of large classes—furnished with appropriate seats, furniture, apparatus and means of visible illustration, and having a retired, dry and airy play-ground, with a shelter to resort to in inclement weather, and with flower borders, shrubbery and shade trees, which they should be taught to love and respect. The play-ground is as essential as the school-room, for a Primary School, and is indeed the uncovered school-room of physical and moral educa-

tion, and the place where the manners and personal habits of children can be better trained than elsewhere. With them, the hours of play and study, of confinement and recreation, must alternate more frequently than with older pupils. To teach these schools properly,—to regulate the hours of play and study so as to give variety, vivacity, and interest to all of the exercises, without over-exciting the nervous system, or over-tasking any faculty of mind or body,—to train boys and girls to mild dispositions, graceful and respectful manners, and unquestioning obedience,—to cultivate the senses to habits of quick and accurate observation and discrimination,—to prevent the formation of artificial and sing-song tones,—to teach the use of the voice, and of simple, ready and correct language, and to begin in this way and by appropriate exercises in drawing, calculation, and lessons on the properties and classification of objects, the cultivation of the intellectual faculties,—to do all these things and more, require in the teacher a rare union of qualities, seldom found in one in a hundred of the male sex, and to be looked for with the greatest chance of success among females, "in whose own hearts, love, hope and patience, have first kept school."

The earlier we can establish, in every populous district, primary schools, under female teachers, whose hearts are made strong by deep religious principle,—who have faith in the power of Christian love steadily exerted to fashion anew the bad manners, and soften the harsh and self-willed perverseness of neglected children,—with patience to begin every morning, with but little if any perceptible advance beyond where they began the previous morning,—with prompt and kind sympathies, and ready skill in music, drawing, and oral methods, the better it will be for the cause of education, and for every other good cause.

2. Secondary Schools should receive scholars at the age of eight years, or about that age, and carry them forward in those branches of instruction which lie at the foundation of all useful attainments in knowledge, and are indispensable to the proper exercise and development of all the faculties of the mind, and to the formation of good intellectual tastes and habits of application. If the primary schools have done their work properly, in forming habits of attention, and teaching practically the first uses of language,—in giving clear ideas of the elementary principles of arithmetic, geography, and the simplest lessons in drawing, the scholars of a well conducted secondary school, who will attend regularly for eight or ten months in the year, until they are twelve years of age, can acquire as thorough knowledge of reading, arithmetic, penmanship, drawing, geography, history, and the use of the language in composition and speech, as is ever given in common or public schools, as ordinarily conducted, to children at the age of sixteen. For this class of schools, well qualified female teachers, with good health, self-command, and firmness, are as well fitted as male teachers. But if the school is large, both a male and female teacher should be employed, as the influence of both are needed in the training of the moral character and manners.

Schools of this grade should be furnished with class-rooms for recitations, and if large, with a female assistant for every thirty pupils.

3. High Schools should receive pupils from schools of the grade below, and carry them forward in a more comprehensive course of instruction, embracing a continuation of their former studies, and especially of the English language, and drawing, and a knowledge of algebra, geometry and trigonometry, with their applications, the elements of mechanics and natural philosophy and chemistry, natural history, including natural theology, mental and moral science, political economy, physiology, and the constitution of the United States. These and other studies should form the course of instruction, modified according to the sex, age, and advancement, and to some extent, future destination of the pupils, and the standard fixed by the intelligence and intellectual wants of the district—a course which should give to every young man a thorough English education, preparatory to the pursuits of agriculture, commerce, trade, manufactures, and the mechanical arts, and if desired, for college; and to every young woman, a well disciplined mind, high moral aims, and practical views of her own duties, and those resources of health, thought, manners and conversation, which bless alike the highest and lowest stations in life. All which is now done in private schools of the highest grade, and where the wants of any considerable portion of the community create such private schools, should be provided for in the system of public schools, so that the same advantages, without being abridged or denied to the children of the rich and the educated, should be open at the same time to worthy and talented children of the poorest parent. In some districts a part of the studies of this grade of schools might be embraced in the Secondary Schools, which would thus take the place of the High School; in others, the High School could be open for only portions of the year; and in others, two departments, or two schools, one for either sex, would be required. However constituted, whether as one department, or two, as a distinct school, or as part of a secondary school, or an ordinary district school, and for the whole year, or part of the year, something of the kind is required to meet the wants of the whole community, and relieve the public schools from impotency. Unless it can be engrafted upon the public school system, or rather unless it can grow up and out of the system, as a provision made for the educational wants of the whole community, then the system will never gather about it the warmth and sustaining confidence and patronage of all classes, and especially of those who know best the value of a good education, and are willing to spend time and money to secure it for their own children.

4. Intermediate Schools or departments will be needed in large districts, to receive a class of pupils who are too old to be continued, without wounding their self-esteem, in the school below, or interfering with its methods of discipline and instruction, and are not prepared in attainments, and habits of study, or from irregular attendance, to be arranged in the regular classes of the school above.

Connected with this class of schools there might be opened a

school or department for those who cannot attend school regularly, or for only a short period of the year, or who may wish to attend exclusively to a few studies. There is no place for this class of scholars, in a regularly constituted, permanent school, in a large village.

5. Supplementary Schools, and means of various kinds should be provided in every system of public instruction, for cities and large villages, to supply deficiencies in the education of individuals whose school attendance has been prematurely abridged, or from any cause interfered with, and to carry forward as far and as long as practicable into after life, the training and attainments commenced in childhood.

Evening Schools should be opened for apprentices, clerks, and other young persons, who have been hurried into active employment without a suitable elementary education. In these schools, those who have completed the ordinary course of school instruction, could devote themselves to such studies as are directly connected with their several trades or pursuits, while those whose early education was entirely neglected, can supply, to some extent, such deficiencies. It is not beyond the legitimate scope of a system of public instruction, to provide for the education of adults, who, from any cause, in early life were deprived of advantages of school instruction.

Libraries, and courses of familiar lectures, with practical illustrations, collections in natural history, and the natural sciences, a system of scientific exchanges between schools of the same, and of different towns,—these and other means of extending and improving the ordinary instruction of the school-room and of early life, ought to be provided, not only by individual enterprise and liberality, but by the public, and the authorities entrusted with the care and advancement of popular education.

One or more of that class of educational institutions known as "Reform Schools," "Schools of Industry," or "Schools for Juvenile Offenders," should receive such children, as defying the restraining influence of parental authority, and the discipline and regulations of the public schools, or such as are abandoned by orphanage, or worse than orphanage, by parental neglect or example, to idle, vicious and pilfering habits, are found hanging about places of public resort, polluting the atmosphere by their profane and vulgar speech, alluring, to their own bad practices, children of the same, and other conditions of life, and originating or participating in every street brawl and low-bred riot. Such children cannot be safely gathered into the public schools; and if they are, their vagrant habits are chafed by the restraints of school discipline. They soon become irregular, play truant, are punished and expelled, and from that time their course is almost uniformly downward, until on earth there is no lower point to reach.

Accustomed, as many such children have been from infancy, to sights and sounds of open and abandoned profligacy, trained to an utter want of self-respect, and the decencies and proprieties of life, as exhibited in dress, person, manners and language, strangers to those motives of self-improvement which spring from a sense of so-

cial, moral and religious obligation, their regeneration involves the harmonious co-operation of earnest philanthropy, missionary enterprise, and sanctified wisdom. The districts of all our large cities where this class of children are found, are the appropriate field of home missions, of unobtrusive personal effort and charity, and of systematized plans of local benevolence, embracing friendly intercourse with parents, an affectionate interest in the young, the gathering of the latter into week-day, infant, and primary schools, and schools where the use of the needle, and other forms of labor appropriate to the sex and age of the pupils can be given, the gathering of both old and young into Sabbath schools and worshipping assemblies, the circulation of books and tracts, of other than a strictly religious character, the encouragement of cheap, innocent and humanizing games, sports and festivities, the obtaining employment for adults who may need it, and procuring situations as apprentices, clerks, &c., for such young persons as may be qualified by age, capacity and character. By individual efforts and the combined efforts of many, working in these and other ways, from year to year, these moral jungles can be broken up,—these infected districts can be purified,—these waste places of society can be reclaimed, and many abodes of penury, ignorance and vice can be converted by education, economy and industry, into homes of comfort, peace and joy.

[The foregoing considerations respecting the disadvantages and evils of gathering children of differing ages and attainments in the same school-room, the principles of classification to be regarded in establishing a gradation of schools, and the supplementary agencies of christian charity which should be *aided* out of the public means, as part of the system of popular education, in every large city and crowded neighborhood—were first embodied by the author in 1838 as a part of an Address, which he was called on to deliver in discharge of his duties as Secretary of the Board of Commissioners of Common Schools in Connecticut, in the principal cities and villages of that State. It has been printed in various educational documents prepared by him since, in the discharge of official duties, and repeated substantially in over fifty cities in different parts of the country, where the establishment of a system of public schools was under discussion. It is introduced into the Journal, because the general views herein presented, are still applicable to a large number of cities and villages.]

II. OFFICIAL EXPOSITION OF COMMON, OR PUBLIC SCHOOLS,

IN THE UNITED STATES.

We continue and complete so far as our material will enable us to do, in this number an exposition of the condition of Common or Public Schools in each State, with the means and suggestions for their improvement, as set forth in official and legislative documents and addresses, principally in 1855–56.

In a subsequent article we shall present a similar exposition of the practical working, and prospects of the system of public instruction in the principal Cities of each state.

We have abstained from making any comments on the statistics and suggestions contained in these extracts—preferring that our readers should form their own opinions as to the condition and prospects of the public schools, and the efficiency of the agencies which are applied for their improvement.

As an extra edition of this number of the Journal will be printed, we have embodied in this article the extracts contained in our September number on the same subject. We shall give our subscribers more than an equivalent in additional matter.

ALABAMA.

Report of the Superintendent of Education [W. F. Perry,] *of the State of Alabama, to the Governor, Oct.* 1, 1855. 36 pages.

This is the first Report of the Superintendent of Education, and is confined to an account of preliminary operations.

Difficulties in organizing an efficient system. The building up of an efficient educational system, adapted to the various wants and circumstances of a large community, has never been accomplished, hitherto, but by the patient, unremitting efforts of successive years. The experience of other states abundantly proves that liberal appropriations and legislative enactments can not, of themselves, impart to such a system that vitality and energy which are essential to its ultimate success. It must rely mainly for these upon enlightened public opinion,—upon a rational, all-pervading interest on the subject, which springs not up spontaneously or from sudden impulse, but is itself the result of a sort of process of education, by which the whole people are brought to esteem the proper training of those who are to come after them, as their paramount duty and highest earthly concern.

Educational Funds. The two funds placed under his control, under the general title of Educational Fund, were created at different times, were subject to different laws, and sustained different relations. One was the property of the State, consolidated and unchanging in amount; the other belonged to the town-

ships in their individual capacity, distributed among them in all possible amounts, ranging from a few cents per annum to many hundreds of dollars, and was constantly accumulating. A small portion of the latter was still under the management of the banks; another and much the larger was in the treasury; a third, in the form of sixteenth section notes, was found in the office of the Comptroller of Public Accounts, and scattered over the State in the hands of trustees, withheld under special laws, or in defiance of law.

To unite these two funds thus situated, and bring them under one general system of accounts which would do full justice to all, and more than justice to none, cost an amount of thought and labor, which he had not been prepared to expect, and which few, perhaps, can now realize.

VISITATION BY SUPERINTENDENT. The superintendent has thus far found time to traverse forty-five out of fifty-two of the counties, generally delivering two addresses in each, and has it in contemplation to visit the remainder before his term of office expires. These visits, though hurried, and often unavoidably made at the most unfavorable times for obtaining audiences, and enlisting public attention, are believed to have been attended with advantage by no means inconsiderable.

RESULTS OF PERSONAL OBSERVATION. That which most prominently strikes the attention of one favored with such a field of observation, is the total inadequacy of the means hitherto employed, ever to accomplish what all acknowledge to be desirable—a general diffusion of knowledge.

Alabama, it is true, can point with just pride to her colleges and high schools, her institutes and academies. Perhaps in no State of the South have individual citizens and communities exhibited more liberality of sentiment. No where have greater personal exertions and sacrifices been made to advance the interests of education. The undersigned would be the last to stifle such sentiments, or to disparage the benefits which have resulted from those sacrifices and exertions. The melancholy reflection still, however, obtrudes itself, that three-fourths of the youth of the State have hitherto either gone without instruction entirely, or have been crowded into miserable apologies for school-houses, without comfortable seats, without desks or black-boards, often without the necessary text-books, and still oftener without competent teachers.

It would be the grossest arrogance to say that the adoption of the present system has supplied all these wants. It has certainly imparted a powerful impulse to the common school operations of the State. It has increased the attendance upon most of the schools previously kept up, and has led to the establishment of many, where none before existed. But the improvement thus far, is in the *extent* to which educational facilities have been diffused, rather than in the *character* of the facilities themselves. The increase of the school fund may have crowded the houses, but it has not always dispelled blank cheerlessness from its old dominion. It has not led to the adoption of the policy which controls men under an increase of private gains—to pull down the old barns and build greater. It has added largely to the demand for teachers' services; but it has not imparted the necessary qualifications to those who are engaged in the mighty field of labor. "Owls and bats" are still employed "to teach young eagles how to fly, because they will work cheap."

There is another conviction to which the undersigned has been forced by extensive intercourse and correspondence with the masses of the people. It is that the present educational movement is not in advance of public sentiment—that the people of the State, by an overwhelming majority, are favorable to the principle of public education, and are prepared to sustain the legislature in all judicious measures for giving additional efficiency to the system already in existence.

REASONS FOR PERSEVERANCE. The following propositions are, in conclusion, respectfully submitted, as containing some of the more prominent considerations in favor of the permanent adoption of that line of policy by the State:

1. The intervention and effort of society in its organized political capacity, constitutes the only means by which a universal diffusion of knowledge can ever be secured. Neither the history of the past, nor the circumstances of the present, reveal any other agency adequate to its accomplishment. The question of a continuance or discontinuance of such effort here, amounts to a direct issue between general intelligence on the one hand, and wide spread, deplorable ignorance on the other.

2. No obstacles in the way of the ultimate attainment of this great object exists in Alabama, which have not been encountered and triumphed over in other States. Indeed the achievements of the present year will challenge comparison with what has ever been accomplished, elsewhere, with the same means and in the same length of time.

3. General intelligence and virtue are included in the very idea of a govern

ment where the people are the great depositories of power, and the ultimate tribunal to which all questions of national policy are referred. "They who govern, must know how to govern; and they who govern rightly must themselves be right." Mr. Mansfield says, "There is a positive antagonism between the possession of civil power requiring the highest exercise of reason, and the want of that intelligence and integrity, which are essential to the right use of reason itself."

It will not be considered improper to introduce in this connexion, the opinion of one of the founders of the government, and the great republican philosopher of his day. Mr. Jefferson, in a letter to Col. Yancey, January 16, 1816, uses this language: "If a nation expects to be ignorant and free, in a state of civilization, it expects what never was and never will be. The functionaries of every government have propensities to command at will, the liberty and property of their constituents. There is no safe deposit for these but with the people themselves; nor can they be safe with them, without information. When the press is free and every man able to read, all is safe."

4. Aside from the overwhelming motives of self-preservation, which apply to nations as to individuals, every consideration of sound domestic economy demands at the hands of government a liberal encouragement of the means of education. The State that scatters broadcast the seeds of knowledge most profusely, will ever reap the richest harvest of golden fruit, in the increased thrift and industry, prosperity and happiness of its people.

5. And finally, it is not an invasion of the rights of property for the government to assess upon each individual his share of the expenses of educating the children of the community, up to such a point, as the nature of the institutions under which he lives, and the well-being of society require.

To perfect the system of Public Schools, the Superintendent recommends the appointment of a single Commissioner instead of the Board, for each County; the publication at the capitol of a Monthly Educational Journal; the holding of Teachers' Institutes, and the establishment of a State Normal School.

ARKANSAS.

We have received no school document, official or legislative, relative to the Public Schools of this State.

CALIFORNIA.

Fifth Annual Report of the Superintendent of Public Instruction [Paul K. Hubbs] *of the State of California.* January 17, 1856.

CONDITION OF PUBLIC SENTIMENT. Public sentiment was never more thoroughly aroused than at the present time, in respect to the subject of education. From the Colorado to the Klamath, from the Nevada Alps to the ocean, the most distinguished citizens of this State are laboring to extend the influence and elevate the condition of the common school.

With this healthy state of the public mind, and in view of the fact, that we are, in respect to common school education, not only very far in arrear to our Atlantic brethren, but also to civilized Europe, there never has been a time when the support of the representatives of the people to this great effort was more imperiously called for.

SCHOOL FUND. We are nominally possessed of a large school property, but practically do not receive enough income to pay the salaries of three hundred and six teachers for two weeks' work in the six months of their labor, for which the small sum of $28,269.60 was apportioned by the State Board of Education on the 1st instant, being the entire income to the State School Fund for the past half year.

SCHOOL ATTENDANCE. The Annual Report from this department to the Legislature of 1855, held this language; "Three-fourths of the children of our State are growing up devoid of learning to read or write." "So far from expecting a future increase proportioned to the imminent wants of this great community, it is evident that without radical and positive change in the supplies, by legislative action, we shall have a meager return for the present year from the schools, many of which are now being abandoned for lack of support." The Legislature of 1855, did not extend the aid solicited from this department, and many schools have been abandoned for lack of support. In the city of San Francisco, where the effort to sustain common schools has deservedly won her a world-wide reputation, (and as a natural consequence amid all her disasters, put her bonds at a premium,) in that

city there is a daily average of 2,988 children reported out of school; and in the county districts of San Francisco, forty-five only of four hundred and nine are in the school. In Stockton, nearly one-half are in daily average attendance. Sacramento City, two in five; and Marysville, but one in three—no doubt in many cases owing to the wilful neglect (if so mild a term can properly be used,) of the parent or guardian In some places, as will appear by the appendix, but one in seven are in daily attendance at the school.

Of the 26,170 resident children reported, 6,422 form the daily average attendance at the common schools. The private schools will not probably increase the number beyond 7,000 in all. What is to be done with the 19,000? They are under the charge of this department, subject to legislative action.

SCHOOL LANDS. It is the sheerest folly to talk about our great resources in public school property, whilst no proper measures are taken to secure it from loss, much less to realize the income due from it.

The Act of Congress in relation to survey and pre-emption, (March 3d, 1853,) provides, that two sections of every thirty-six, when surveyed, be set apart for the school purposes of the township.

Of the 500,000 acres donated under the Act of Congress, April 4th, 1841, and diverted by our Constitution to school purposes, the greater part remains undisposed of.

The aid to the University that we hope some day to see established, from lands donated by the General Government, like that from nearly all the school lands, continues a deferred hope, upon which the mind may look at at so great a distance as to realise little else than the clouds that environ it.

SEMINARY LANDS. The Seminary lands awaiting only the U. S. surveys, to be fully and conclusively located, I recommend to be placed at once under the entire title, control, and management of the Board of Regents of the University, which I can not doubt the Legislature will provide for at an early day, in "An Act to establish the California State University."

SCHOOL LAW. We have no free school system. Cities are empowered, under certain restrictions, to raise means, and, to a certain extent, maintain free schools. The counties may or may not levy a limited tax, to maintain schools, depending upon the views of the Board of Supervisors, a board that has done more good in checking extravagant county expenditures, than was anticipated, even by the best friends of the supervisory system; but with heavy old county debts too often pressing upon them, they are timid, and too frequently parsimonious in respect to the schools. In some densely settled counties, no tax whatever has been levied for school purposes; moreover the supervision of the accounts for school expenditure of the county, is not as thorough by the Board of Supervisors as could be desired, otherwise the returns to this department would be more explicit and satisfactory.

SCHOOL BOOKS. Immediately upon entering upon the duties of this office, I designated, in accordance with the Act, a uniform series of books to be used in the schools. The recommendation has not been sustained, and the Superintendent has no power to enforce it. The books designated comprised the very latest and most improved works used in the Atlantic States; but our bookstores were so crowded with the refuse books thrown out at the East, at low prices there, at least, that the most valuable works, adapted to the advanced progress of the common school system, could scarcely be had.

SECTARIAN ACTION. The Superintendent has no adequate power under the existing law, to check as should be done, any sectarian bias or control, exercised upon the public schools. A sectarian war is in embryo, which if not quieted at once, will, combined with other causes, produce a lingering death, slowly but surely, to popular education in this State. The rejection of well qualified teachers at one time, because of their religious faith, produces a reacting opposite extreme at another time, and the whole catalogue of sects become excited to have their own members used as teachers, and their own churches as school houses. This is all wrong, and the result will be disastrous.

DENOMINATIONAL COLLEGES. Whilst we thus maintain intact, steadily but firmly, the proper administration of the common school system, let us not undervalue the efforts making by, emphatically, the good men of our land, in rearing colleges worthy the support of the State, though established by religious influence and controlled by religious domination. Three colleges have been chartered in accordance with law during the past year: one at Santa Clara, under charge of the Methodist Society; one at Oakland, under charge of the Presbyterian Church, and one at San Jose, under care of those who profess the Catholic faith. They

are all struggling in their infancy, but destined to much good. I recommend that a liberal appropriation be made to each of these colleges.

CONNECTICUT.

Report of the Superintendent of Common Schools [John D. Philbrick] *to the General Assembly, May*, 1856. 198 pages.

This document, besides the Annual Report of the Superintendent, embraces an Appendix of great value, viz., Reports of Visits and Educational Lectures by Agents appointed by the Superintendent; Extracts from School Visitors (Local Committee of Supervision) Reports; An Educational Tract—a Teacher's Appeal to the Parents of his Pupils; Circular to School Visitors respecting certain proposed changes in the School Laws; An Argument for Free Schools from Horace Mann's Tenth Report as Secretary of Massachusetts Board of Education; Places and Descriptions of School-houses; Specimens of Rules and Regulations for Schools; Inquiries addressed to School Visitors; Tables of Returns by School Visitors; List of Teachers' Conventions or Institutes held in Connecticut since 1853.

LABORS OF SUPERINTENDENT. These include personal attention and teaching in the Normal Schools; preparation for and conducting eight Teachers' Institutes; delivering addresses in different counties; answering questions as to the construction of the School Law; deciding claims for payment of public money forfeited; consulting with teachers and committees; assisting in a revision of the School Law, and in editing of the Common School Journal. It is not to be wondered at, that the health of the Superintendent should have broken down under these manifold and arduous labors.

TEACHERS' INSTITUTES. Eight Institutes were held, one in each county, with an attendance of 735 members. The added experience and observation of another year tend to confirm the favorable opinion I have heretofore entertained in relation to Teachers' Institutes. If rightly conducted, they are instruments of much good, not only to the teachers in attendance, but also to the communities in which they meet. A recent writer has, very appropriately I think, called them "distributing offices," by means of which the various improvements in teaching and school management are disseminated through all parts of the State.

STATE NORMAL SCHOOL. This institution has continued in a prosperous condition during the past year, and it is believed that each year adds to the conviction that its establishment was the result of a true foresight. During the last winter, the number in attendance was unusually large, being one hundred and eighty.

Many of the graduates of this school are making themselves eminently useful as teachers, and a few are at the head of some of our largest and best graded schools.

During the past year nearly four hundred of the teachers employed within the State have been, for a longer or shorter period, members of the State Normal School, and many of these have given a high degree of satisfaction.

EDUCATIONAL TRACTS. About 1000 copies of an excellent Tract on the consolidation of districts, was printed and circulated gratuitously. Nearly 5000 copies of another Tract, entitled "A Teacher's appeal to the parents of his pupils," have been printed and circulated at a trifling charge.

It was thought that these little messengers, if sent abroad, would find an audience with many who would not, otherwise, give a listening ear or lend a co-operating hand in behalf of the great work in which we are engaged.

Having great confidence in the efficacy of this mode of operating upon the people, I would most respectfully and earnestly urge that a reasonable sum may be appropriated for the purpose of enabling me to avail myself, still more extensively, of this great, but effectual, way of awakening interest and securing right action.

COMMON SCHOOL JOURNAL. The Journal has been regularly published during the past year, and the several numbers have been sent to the acting School Visitors in the various localities, in accordance with provision made by the General Assembly. I am confirmed in the opinion that it is a highly important and useful auxiliary in the educational department. Going, as it does, into every School

Society of the State, it proves a highly valuable medium for the diffusion of intelligence in relation to schools, methods of teaching, &c.

If an appropriation should be made whereby a copy of the Journal could be sent to every School District within the limits of the State, I feel convinced that the result would be so favorable and extensive, as to afford ample assurance that the investment was a judicious one.

EDUCATIONAL LECTURES. The provision whereby the Superintendent is authorized to cause an address, on the subject of Common Schools, in each of the School Societies of the State, is deemed a very important one, and eminently calculated to diffuse correct ideas and to awaken an interest on the part of the people. Whatever efforts shall tend to bring the great and important interests of popular education directly before the minds of the people, and cause them to reflect upon the subject, cannot fail of producing highly beneficial results.

TEACHERS. A good school is the product of the combined and harmonious operation of various agencies. Of these, by far the most important is the teacher, so that the apparently extravagant maxim, "as is the teacher so is the school," is essentially true. The teacher is to the school as the engineer to the engine—the master to the vessel—the commander to the army. School-house, text-books, apparatus, classification, attendance, supervisory officers, may possess every requisite of excellence, and yet, for the want of a suitable teacher, the school may be but a name. No good instruction will be given, no good habits formed, no moral or mental discipline imparted, no desire for knowledge inspired, and all the costly and careful preparation for education, will avail but little in the hands of an incompetent teacher. On the contrary, the accomplished teacher will almost create a good school in the face of every obstacle. Pupils can not come in contact with him without being bettered. His power and skill will turn the very defectiveness of the means employed, into the means of improvement.

COMPENSATION OF TEACHERS. Called to perform duties of the most arduous, responsible and important nature, teachers are entitled to a rate of compensation as great as the same talents and devotion would secure in any other department. I would not be understood as advocating any degree of extravagance on this point, but would simply contend that if the business of training the immortal mind is as important as any other, then the inducements for those who engage in the work should be equal to those held out in any other department of labor.

The average wages of female teachers, is about $17 per month, from which, if we deduct $2.50 per week for board, we shall have only $7 for the poor teacher in return for four weeks of earnest and devoted labor. And, I would ask the candid and intelligent citizens of our State, if this looks like true liberality or true wisdom? Will this small rate of compensation secure a high order of talent? Will it warrant the expenditure of time and money essential for a proper course of preparatory training?

CO-OPERATION WITH TEACHERS. However important and weighty the teacher's duties and responsibilities may be, and however faithfully they may be met, they can never compensate for deficiency on the part of parents and citizens. I have time now only to designate a few particulars in which parents may co-operate with teachers in the great work of education, and thus indicate their appreciation of the true importance of their vocation.

1. By securing the constant and seasonable attendance of pupils.
2. By a reasonable compensation to teachers, cheerfully and promptly rendered.
3. By a seasonable and full supply of the necessary text books, and all necessary apparatus.
4. By encouraging in the pupils habits of diligence and obedience.
5. By cultivating a friendly acquaintance with teachers.
6. By visiting the schools.

SCHOOL-HOUSES. The school-house everywhere stands out as the symbol and exponent of education. It is a visible and palpable index of the popular sentiment on the subject. Where there is not sufficient interest to build a good school-house, it is idle to look in that place for other elements of a good school. If the old house as it was, with all its inconveniences and discomforts, is thought to be good enough, the old price for teachers is good enough, the same old books are good enough, four months schooling a year is enough.

During the year forty-one new school-houses were erected, at an expense of $120,000. In some of the districts where the spirit of progress has triumphed, and the old structure has given place to the new, a degree of perseverance and energy has been exhibited, rising almost to heroism. In one, fifteen meetings were warned in succession, before the victory was achieved. Scarcely a district can be found

which does not contain some penurious individuals, who will seize upon any pretext to oppose the outlay of a dollar for a school-house. Though the rights of such persons should be respected, they should not be permitted to stand in the way of educational improvement. If the erection of a suitable school-house is to cause opposition, the sooner it comes the sooner peace comes.

LENGTH OF SCHOOL TERM. The law requires the school in each district to be taught for six months in the year. The Superintendent recommends that the minimum be set at eight months.

GRADATION OF SCHOOLS. It facilitates an economical classification. A school is classified as well as it can be, when those scholars who are nearly of the same age and advancement, are assigned to the same class, and are all employed upon the proper studies. In a common district, or mixed school, consisting of fifty scholars, of all ages, as many classes are required as in a school of six times the number,—though in the latter, each class would be six times as large. From twenty to thirty is a proper number for a class, with a good teacher.

Suppose we have six hundred scholars, of all ages, residing within a reasonable distance from a central point, and suppose we erect, for their accommodation, a union school-house, containing twelve rooms, each room capable of accommodating fifty scholars. Now, after an examination, let these six hundred scholars be distributed in these twelve rooms, according to their advancement. Let the fifty in each room be again subdivided into two classes of twenty-five each,—a first class and a second class, according to attainments. Let all in the same class attend to precisely the same branches of study. Let the Principal or Superintendent have the general supervision and control of the whole, and let him have one male assistant or sub-principal, and ten female assistants, one for each room. Or, if it be thought best, let the rooms for the upper departments be large enough for one hundred pupils, with a recitation room attached, for two teachers. The scholars in the lowest room will consist of very small children, just beginning to learn to read and spell. Those in the next room will be a little older and a step higher in their studies,—and so on until in the upper department we shall find young ladies and young gentlemen engaged in the pursuit of studies appropriate to a High School. Those in the same class have, invariably, the same class books, and each department is supplied with a teacher, especially adapted to its grade and studies, and furnished with all the requisite books and apparatus. This is what is meant by a thoroughly graded school, each class being just large enough to enable the teacher to work to advantage, and no one being so large as to be unmanageable. Several schools, answering very nearly to this description, are now to be found in Connecticut.

What are the advantages of such an arrangement over those which could be enjoyed by the scholars, if they were in twelve separate, mixed schools? In the mixed schools of fifty scholars, the number of different recitations and exercises during the day would be about twenty-four. The opening and closing of school, the recesses and necessary interruptions, would consume upwards of an hour, so that the average time left for each recitation would not much exceed ten minutes. In such a school the teacher is obliged to hurry from one exercise to another, with great rapidity, and of course, during the day, perform a great diversity of labor, from teaching the alphabet, to the highest class in algebra.

In the school, graded as I have described, the teacher has but two classes, and not more than six or eight recitations during the day. Consequently, there will be time enough to give to each scholar a thorough drill, without hurry or confusion. In other words, thorough teaching is greatly facilitated. The time of teacher and pupils is all used to the best advantage. While one of the classes is reciting, the other is preparing for recitation—this process alternating all day—the pupils having just time enough for study, and the teacher time enough for instructing each class. The advantages in the discipline and government are no less striking than those of instruction.

In the mixed school, a uniform system of management for the smallest and largest pupils can not be adopted. That kind of discipline which would be well adapted to the smallest children, would not be suitable for the largest. Hence, a much greater amount of labor and skill are required in the government of a mixed school of fifty scholars, than of the same number of scholars in a graded school; and all the teacher's force which is absorbed in government, in just so much subtracted from his available force for instruction.

Another advantage of this system is found in the facility afforded of employing teachers adapted to the different grades. To succeed well in a mixed school, requires a rare combination of qualifications—capacity to teach and interest the youngest, and also the oldest. But it is not so difficult to find teachers who are well adapted to a special department. In a graded school, each teacher has a

small number of different branches to teach, and, consequently, can do those so much the better.

The establishment and liberal support of graded schools, have given great satisfaction, and fully answered the expectations of their advocates, and no community which has given the system a fair trial, with a competent principal and well selected corps of teachers, could be induced to abandon it, and return to the old plan.

MORAL CULTURE. The want of a better moral training in our system of education is already beginning to be felt. It is already to be seen that we have exalted intellectual capacity above moral principles; while virtue ought to be education's paramount object, and ability subordinate. I note it as one of the encouraging signs of the times, that the importance of greater attention to moral training in our schools, is beginning to be agitated with earnestness and effect. A portion, and generally the most eloquent portion of nearly every educational report that reaches us, is devoted to this topic. The light which, for centuries, has been seen on the mountain summits has, at length, approached the valleys.

Milton spoke on the subject almost with the accents of inspiration. These are his words: "The end of learning is to repair the ruin of our first parents, by regaining to know God aright, and out of that knowledge to love him, as we may the nearest by possessing our souls of true virtue, which being united to the heavenly graces of faith make up the highest perfection."

Locke, the great John Locke, has spoken words of wisdom on this subject. "Virtue," says he, "direct virtue is the hard and valuable part to be aimed at in education, and not a forward pertness, or any little arts of shifting; all other considerations and accomplishments should give way and be postponed to this. Learning must be had indeed, but in the second place as subservient to greater qualities. Seek somebody as your son's tutor, that may know how discreetly to form his manners; place him in hands where you may, as much as possible, secure his innocence. Cherish and nurse up the good and gently correct and weed out any bad inclinations and settle him in good habits. This is the main point, and this being provided for, learning may be had into the bargain."

Books, without number, have been composed for cultivating and improving the understanding, but few, in proportion, for cultivating and improving the affections.

But the best treatises will avail little without living teachers, with a hearty, earnest interest in the promotion of virtue, a sincere delight in noble character, a real passion for moral excellence, for generous, patriotic, honorable action, furnishing in their own persons examples of the precepts they enjoin. With such teachers, and with that best of manuals for teaching morality—the Bible—we may hope to see our youth walking in "wisdom's ways," and growing up as true ornaments and blessings to the community.

STATISTICS. Number of Towns,	153
Number of School Societies,	222
Number of School Districts,	1,626
Number of Children between the ages of 4 and 16 years,	100,820
Average number of Children in each District,	62
Capital of School Fund,	2,049,953-00
Revenue of School Fund for 1855–6,	147,215.00
Dividend per Child over 4 and under 16,	1.30
Capital of Town Deposit Fund,	763,661.83
Revenue appropriated to Schools,	40,000.00
Amount raised by 1 per cent. tax,	70,129.37
Amount raised by Society tax,	13,603.00
Amount of Revenue from Local Funds,	11,327.00
Amount raised by Rate bills,	31,839.00
Amount appropriated for support of Schools, exclusive of School-houses and repairs,	314,113.37
Amount expended for School-houses,	138,267,00
Aggregate amount expended on Common Schools,	452,380.37
Average wages of Male Teachers, including board,	28.75
Average wages of Female Teachers, including board,	17.25

The Reports of Lecturers, and School Visitors, point out the evils and defects in the working of the system, in the indifference of parents, the construction of school-houses, the irregular and non-attendance of children, frequent change of teachers, &c. The Tract, or Letter to Parents, by Mr. Northend, should be sent to the home of every pupil in the land.

To be Continued.

LOUISIANA.

Address of Dr. Samuel Bard, Superintendent of Public Education, before the General Assembly of Louisiana, February 20th, 1856. 13 pages.

In the absence of any late official report, we give a few extracts from the above Address of the Superintendent of Public Education.

More than two millions of dollars had been appropriated by the State in behalf of the system since its organization. Several laws had been enacted, which, making no adequate provision for their enforcement, had failed, in a great measure, to attain the objects hoped for by the friends of the system. These facts are not "hid under a bushel;" they were too glaring for concealment. Within the past year, in thirty parishes, 12,228 children attended school, and 11,191 did not attend In these parishes there was paid out to teachers $114,308.34. The yearly apportionment, for the same parishes, was $142,681.28. The schools numbered 498. He alluded to those thirty parishes only for the purpose of illustration, to exhibit the present operations of the system.

From these figures, said the speaker, it is obvious that there is a lamentable deficiency in the system; for it appears from them that nearly one-half of the educatable children in these parishes had not, for that year, derived any advantage from the system. This being the case, he asked, what should be done?

First: give us a practical, common-sense law, plain in its provisions, positive in its requirements; such a law as a distinguished member of the House of Representatives, who is also connected with the Press, has said could be drawn up by three business men in a very short space of time.

Second, let the State Superintendent be placed by the General Assembly in a position that will enable him to render efficient service, as the head of the system, in promoting the educational interests of the people. Let him have work to do; let his energies be awakened; let him not be entrammeled by the provisos of faulty and inefficient laws; let him have before him the certain prospect of accomplishing something—possibly much—as the result of his labors in the cause of education.

That our efforts in behalf of education may succeed to the fullest extent, he said that we must make provision for the education of our teachers. We should select for that work *home material*—persons who have been reared on Southern soil, who were imbued with Southern sentiments and attachments, who feel a deep concern for the weal and prosperity of the South. We have no objections to competent teachers from the North, who, coming amongst us, identify themselves with us in all our private and public relations, who devote themselves in good faith, and without the bias of sectional feeling, to the work of education. He admired the North in all her physical attributes—"her purling streams, her hills and mountains baptized in beauty." He admired the mighty social and moral energies of her people, which, when directed into the legitimate channels of human progress, lead to a nation's power and glory. But we have a country not less attractive, a climate more balmy, a soil more fertile, a people no less chivalric and brave; above all, it has the distinguishing merit of being our *own*, by birth or adoption, and to it, as such, by every consideration of pride and affection, we owe it our first duty.

If you desire your children to reside in the South, is it not right that you should educate them on Southern soil, and under the influence of Southern institutions? If you wish the South to enjoy that exalted respect to which she is justly entitled, depend upon your own resources and exertions. But here he was met with the objection, we have not teachers, nor the peculiar facilities possessed at the North. Why have we them not? The reasons are as glaring as the noonday's sun. Now the South has one of two things to do—to educate her sons and daughters, or to lose ground from year to year in influence and political power. Would that our people could appreciate the vast necessity of cherishing home institutions in preference to those of a foreign soil!

The speaker dwelt on the importance of establishing one or more Normal Schools, with Model Schools annexed, in order to make teaching a profession, and ridding the State and the schools of instructors who are not qualified by nature or study for the work.

The city of New Orleans has had for several years a system of Public Schools, particularly in the Second Municipality, which will compare favorably with that in operation in any city of the country.

DELAWARE.

Twentieth Annual School Convention of New Castle County, held at Wilmington, Delaware, Sept. 4, 1855. To which is added the Report of Dr. Grimshaw, Superintendant of Common Schools for the County. 16 pages.

In the absence of any State document respecting the Public Schools of Delaware, we make a few extracts from the Report of one of the County Superintendents.

The Superintendent of Common Schools for New Castle County remarks:

SCHOOL HOUSES. Our churches, our clothes, everything but the school-house manifests an age of improvement. The location of a school-house, as has been repeatedly stated, is in almost all cases badly chosen. I can not say carelessly, because in most instances the coldest, bleakest, least protected, noisiest and dustiest spot in the district, is chosen after excited deliberation; always on a public road, generally at the junction of two. The school-house should be placed in a quiet, sheltered, shaded spot. Most of those I have visited are destitute of shade, and in nearly every instance, no fence has been erected. Very few have porches, not one in fifty enjoys the luxury of a small piece of iron, called a scraper, on which to clean shoes, many are entirely too small for the number of children now crowded into them. The arrangement of the desks is, in nearly every school, exceedingly defective. Every pupil should face the teacher, so as to be under the control of his eye. In many schools, I have found the desks placed around the walls, the teacher enjoying a fine view of the *backs* of his scholars: in some, a very injurious practice prevails of facing the desks, I mean, of making double desks, so that the pupils have every opportunity afforded them of amusing themselves, rather than of studying.

Very few of our school-houses are provided with curtains to the windows, all of them, I believe without exception, have too many windows. No school-room should have windows opposite the pupils faces; none should have windows on all sides.

The ceilings in most of our houses are too low, and our mode of attempting to heat by stoves, is such as to incommode the school without securing warmth.

Only one or two of our school-houses have any adequate provision for ventilation; as far as I have noticed, the only one outside of the City of Wilmington, is in the house located near Center Meeting, in District No. 26.

I can not refrain from speaking of the almost total want of attention to decency, which is manifested in the location of those outbuildings, which a delicate mind endeavors to hide from public gaze, and which no one of correct feelings desires to enter in the broad glare of noon-day, under the gaze of the passing crowd. I have noticed that in some instances, both sexes are obliged to resort to the same building; this, in many cases, so situated that the door opens towards the school-house; or if there are two buildings, I have seen them placed within ten feet of each other, exposed to the gaze of the pupils, or of travelers on the public road; the doors *facing* each other, and no screen placed between. Can anything be less conducive to morality, decency, virtue and propriety, than this improper exposure of those offices which should be screened in the most secret and guarded manner?

Our school-houses are not provided with those appliances which are absolutely necessary as aids to the teacher. Scarcely a school is provided with any map, except one of our own State. Only one or two own a globe; one or two have cards for the instruction of primary pupils; not one has a numeral frame. Some have blackboards, but many of these are too small, and are hung so high as to be beyond the reach of the pupils; many are not used at all.

TEXT-BOOKS. I find that some pupils are sent to school without any books; they are, consequently, not students but *nuisances*. Others come with just such books as please the fancy, caprice or poverty of their parents. I found in one school, with forty-three names on the roll, the average attendance in which was twenty-seven, five different kinds of reading-books, and seven different sorts of arithmetics.

INDIVIDUAL TEACHING. A great deal of time is wasted by the old fashioned and false method of teaching individuals instead of classes. I notice in my visits to the schools, many pupils sitting idle, sometimes part of the school is asleep, or what is worse, engaged in making a noise, and disturbing the remainder, who may desire to be industrious. This defect arises from the total want of attention on the part of most of those engaged in teaching, to those simple plans, adopted by all good teachers, by means of which all the pupils can be kept employed. Again, much time is lost by using written copies instead of adopting the modern approved

and better mode of teaching writing with printed copper-plate copies. In a large number of the schools, I find many, in some one half of the pupils do not own slates. Any one, with the slightest knowledge of the art of teaching, knows that a slate and pencil are indispensable articles in a school, and that any child of sufficient age to go to school, can be taught spelling and writing and arithmetic, and be employed in drawing simple figures. Instead of this, I find children of eight and nine years of age, who have been attending school for four or five years, who can not write. A child who is permitted to be idle in school, is falling into habits which will stick to him or her through life; the defect will be noticed in the workshop, field and counting-house, in subsequent years. I have not time, on this occasion, to point out all the defects in our modes of teaching, and to show to our people that they do not receive the worth of their money, and that in many of our schools little or nothing is taught, though the children go through the formality of "saying lessons."

WANT OF PUBLIC INTEREST. After visiting about one-half the districts in our county, and these where we have been accustomed to believe there was the most educational spirit, I am compelled to say, that our people are not deeply interested in common schools, and do not care sufficiently about this vital question. I have arrived at this conclusion, after repeated conversations in the districts, and when I note that not one-third of our school voters are ever found at a school meeting or election, when, at the ordinary, unexciting county elections, for officers whose duties are not so intimately connected with the happiness and welfare of every family, at least one-half the voters would exercise the privilege of voting, I am convinced that our people do not appreciate the benefits of good common schools.

TEACHERS. After an experience of two years, as one of the examining committee of the Board of Education in the city of Wilmington, I am compelled to assert that a large proportion of those who presented themselves for examination, were deficient in the elementary branches of an English education, and that, owing to the difficulty experienced in procuring capable instructors, the Board attempted to establish a training school. Some of those who had been teaching for a long time, and some who bore strong testimonials, failed more signally than those of less pretension. I do not pretend to say, that an examination is an infallible method of testing the qualifications of a teacher, but it will at least show whether he or she is qualified in a literary point of view. The person who can read, spell, write, and cipher well, may not make a good teacher, but the individual who can not read, write, or cipher well, *will* not and can not make a good teacher.

Our teachers lack system; the faculty of order is not well developed. Military men study the art of war, and books are published on military discipline or tactics, but teachers seem to suppose that any man or woman who chooses to keep school, is qualified to do so. While our people are to blame for some of the defects; while miserable houses, ill constructed desks and irregular attendance are stumbling blocks in a teacher's path, they are not insuperable obstacles; but, when we find pupils of eight and ten years of age who can not read and write, we must attribute the ignorance to the defects of the teachers. Dentists, Doctors, Farmers and Mechanics, are seeking to improve themselves by associating into societies, and by reading books. But teachers refuse these aids, and ignorantly and superciliously turn away from the proffered assistance.

English Grammar is almost totally neglected, and composition is an art which one should suppose was entirely useless. Every child should be taught how to write a letter at least. I am sorry to say that our teachers often manifest that they are unfit to teach children to speak and write correctly, by the use of ungrammatical expressions in their common conversation.

Some teachers attempt to teach too many branches, and these frequently of a character beyond the capacity or wants of the pupils. I have found French taught to one pupil in one school, and Latin to one in another. This is highly improper. No teacher can or ought to devote so large a portion of his time to one pupil.

I am sorry to say that our teachers do not understand employing and interesting the younger or primary scholars. I have counted as many as twenty little children sitting idle, without book or slate, acquiring bad habits and learning to dislike the confinement of the school-room.

SUPERVISION. The visits of our Commissioners to the schools are so rare, that I may say they exert no supervision over them. They are elected, organize, levy a tax, employ a teacher, and never go near the school.

WANT OF PARENTAL INTEREST. The parents never visit the schools, and feel but little interest in their prosperity, and less sympathy for the teacher. No

school can succeed when the parents encourage and permit their children to be so irregular and tardy in their attendance. It will be noted that frequently one-half the children are retained at home, very often at least one-third. Thus in a school with 56 names on the roll, only 22 were present on the day of my visit. Out of 110 on the roll, the average attendance was reported at 80; nearly one-fourth of the pupils were away. Making due allowance for stormy weather and bad roads, there is no necessity for twenty per cent. of our pupils to be kept away from school. In a district covering a very small territory, and intersected by good roads, and where most of the pupils reside within one mile of the school, one girl only attended ten and a half days in a month; one do. do., sixteen and a half do. do.; one do. do., twenty-five do. do.; one do. do., one half do. do. One boy only attended eight days in a month; one do. do., fourteen do. do.; one do. do., five do. do.; one do. do., nine do. do.; one do. do., six do. do.

Allowing twenty-five days to a month, one girl made a full month's time; nine pupils made ninety-four days and a half, instead of two hundred and twenty-five days. What farm or factory would succeed with work so irregular as that, and how would the pay-roll of these pupils look, if they were working in factories, and lost one-half and four-fifths of their time?

The pamphlet from which the above extracts are taken, contains Remarks by the President of the Convention, Hon. Willard Hall, to whose untiring exertions, the City of Wilmington and State of Delaware owe a debt of gratitude for such public schools as they have.

REQUISITES FOR A GOOD PUBLIC SCHOOL. The first requisite of a good school, is a good, commodious school-house, in a pleasant situation, properly furnished. If the people of a district would come together in their school meeting, and take an interest in their school, they would not rest without such a school-house; they would not consent to be disgraced by a mean, shabby house, for the highest object for which they live—to train their children to live after them; but they would regard their own credit and the welfare of the children of their district, and have a building showing that they can appreciate the important trust committed to them by our school laws, to provide a school for the education of these children.

The school-house should be an ornament of the district, in a pleasant spot, inviting to the children, grateful to the recollections of their after years.

A well qualified teacher is indispensable to a good school. Difficulty of procuring well qualified teachers, is a general complaint. This difficulty arises from the same source, to which we trace every other hinderance of good schools—neglect. If the people of any district are in earnest to have a good school, and if they will attend the school-meeting and take proper measures to have one, they will easily surmount the difficulty of procuring a suitable teacher.

Upon this point we may add, that a Teacher's Association in each county would be a powerful means to change the character of teachers, elevate their standing, and enhance their compensation; and there is no worse sign with respect to teachers than their backwardness to form such an association.

It is believed that the surest means to remedy the evils under which our public schools are depressed, would be a paper well conducted, and circulating in our school districts. A number of copies sent to every school-house, and thence throughout the district, would be a very effectual means of education, would enlighten the common mind upon the most vital of its concerns, that of education, while by diffusing general knowledge, and producing a taste for reading and a spirit of research, it would be an invaluable benefit to parents as well as to children.

These suggestions indicate the need of a State Superintendent, for a few years at least, to rouse the public mind to these most important considerations. All that is requisite in order to our having one of the best systems of public schools in the Union, is for the people to take the subject in hand with earnestness. The public schools are their schools, they belong to the numbers, and upon them the numbers must depend for all the benefits of education. Now will the numbers abandon their own interests, and suffer a state of things consigning them to the most copious source of all evil to men, communities as well as individuals, the incompetency and waywardness of neglected education? This question is worthy of the best consideration; it should be deliberately examined.

FLORIDA.

We have not received any official report respecting the Public Schools of Florida.

GEORGIA.

In the absence of any official report respecting the condition and improvement of the elementary schools of Georgia, we introduce extracts from a "*Speech of Mr. Stiles, of Chatham, on the Subject of Common School Education, delivered on the 29th of January*, 1856. Published under resolution of the House." This speech was made by Hon. William H. Stiles, Speaker of the House of Representatives, in the midst of a stormy debate on a "Bill for establishing a System of Common Schools," reported by a Committee—for the purpose of introducing a substitute of three or four sections, authorizing the Governor to appoint a Commissioner of Public Schools, "to visit the various counties of the State, to prepare one or more plans of organization suitable to the whole, or to certain districts of the State, to diffuse by public addresses a knowledge of existing defects and desirable improvements, and report on the expediency of establishing one or more thoroughly organized Normal Schools"—as the corner stone of a new system afterwards to be more fully discussed and matured.

The Speaker discusses with great ability the following propositions:

1. It is the duty of every government to provide for the education of the people.

2. But if it is the duty and interest of every government to provide for the education of the people, more especially is it the duty, the interest, and even the indispensible necessity of a free government, to educate the people.

3. What are the difficulties in the way of those duties and interests?
These may be briefly enumerated under two heads:
1st. We need in Georgia *more* education.
2d. We need *better* education.

1st. That we have need of more education in Georgia, is a proposition no one will be disposed to dispute. If any doubt existed on that point, it would be immediately dispelled by reference to the last census of the United States, taken in 1850, which exhibits the appalling fact, that we have within the limits of our State upwards of forty thousand human beings over twenty years of age, who can neither read nor write. This evil not only exists, but what renders it still more alarming, is the fact that it is increasing upon us with fearful rapidity. By the previous census of 1840, the number of persons who could neither read nor write, is estimated at 30,000, so that in ten years, there has been an increase of more than one-fourth, in that unfortunate class.

And there are other facts which that census discloses, equally distressing to the patriotic heart of every true Georgian.

We have in this State, under twenty years of age, - - -	212,226
If we deduct those under five years, as incapable of going to school,	56,054
It leaves a balance needing instruction, of - - - - - - -	156,172
If we add to these the number of those over twenty years, who cannot read or write, - - - - - - - - - - - -	41,667
It makes the number to be taught, - - - - - - - - -	197,839
Deduct from that those going to school, viz., - - - - - -	77,015
It leaves destitute of all instruction, - - - - - -	120,824

Again, the number of teachers in Georgia, as the census shows, is only 1,265, which, at the rate usually allowed of fifty scholars to the teacher, (to speak in round numbers,) would be sufficient only to instruct 63,000 scholars; whereas the number of teachers required for those needing instruction in Georgia, viz:

197,000, is - - - - - - - - - - - - - -	3,956
Deduct from the number required, the number we now have, - -	1,265
And it leaves us in want of (teachers,) - - - - - - - -	2,691

But to exhibit in its true light the want under which we labor, it is only necessary to refer to the advantages of education enjoyed at this day by almost all of the civilized nations of the world.

The speaker then passes in rapid review the history and condition of popular

education in the principal states of Europe, from which he adduces the following "secrets of their success in education."

1. Education enters into and constitutes an important part in the administration of government. In each country there is a Minister of Public Instruction, who constitutes a part of the ministry or cabinet, the same as the Minister of War or Finance, and who controls the whole subject of education throughout the Empire.

2. It is gratuitous; in most of the countries, the expense of tuition is borne by the government, and in others the fees are very small, and exacted not so much with a view to support the system, as to "enforce a lesson of domestic piety, establish parental authority, and vindicate personal freedom."

3. It is compulsory; and everywhere the attendance on schools is enforced, either through the police or some school authority.

So much for the condition of education in the various countries of Europe, in which it is evident that the least advanced, although possessing school systems inferior to those of Germany, Switzerland or Holland, are yet vastly superior to anything which we can boast of in this "Empire State of the South."

After glancing at the condition of public schools in the United States, the speaker exclaims:

And what is the result of that system? Why the six New England States stand in point of intelligence the first on the list of States of the Union, and New Jersey and New York next, while the "Empire State of the South," stands the twenty-third State, having in the whole galaxy of this Union, at the time that census was taken, but four States that she could look down upon. After this exhibit of our state when compared not only with the countries of Europe, but the States of the Union, we can find no difficulty in arriving at the conclusion that we need in Georgia *more* education.

2d. We have need in Georgia of *better* education.

The only means by which we can expect to have better education, is, by the improvement of the teachers. If, then, the first step towards reform in our system of popular education, be the scientific preparation of teachers for the free schools, the next inquiry is, how can we soonest and most perfectly achieve an object so desirable? The ready and obvious answer is, establish an institution for the very purpose. Establish an institution to afford that instruction which neither the common school, the academy or the college can furnish, viz., a knowledge of the theory and practice of education.

After discussing, in a brief and masterly manner, the necessary qualifications of such teachers as Georgia should train for her own public schools, and the history of professional institutions for training teachers, the speaker comes to his last point.

4. How are these difficulties to be overcome?

The first steps or initiation towards overcoming these difficulties is, in my humble judgment, the passage of the substitute now upon your table. The first section of that bill provides for the appointment of a commissioner of public schools. This is the preliminary and indispensable step to the establishment of any system of common schools. All experience, both in Europe and America, on the subject of education, attests this fact.

A system without a commissioner, would be an awkward and unwieldy body without a head, which could not be moved, or if capable of moving at all, would be like a ship at sea under full sail, and without a helmsman; it would move on only to destruction. In framing this substitute, experience, and experience alone, has been my guide.

In all the countries of Europe, as I have already shown, there is a head to the system, and that head is found in the respective Ministers of Public Instruction. In this country, every State which has adopted a system of public schools, has at its head either a commissioner or some other officer, with the same powers and duties, under another name. It is an insuperable objection to all the plans or school systems presented for the consideration of this body, that this head or chief officer is omitted, and the system is left to be worked or not worked at all by county officers, unqualified and unpaid. And without a commissioner of public schools for the State, who is to decide where any man is aggrieved in consequence of any acts or decisions of any school committee, district meeting, trustees, county inspectors, or in any other matter arising under the school law? Who is to see that there is uniformity in the system; that the general standard of education shall be alike in similar districts throughout the State; who is to have a knowledge of these facts, and to report the same with whatever progress has been made, as well as

such defects in the system as experience shall demonstrate as necessary, and which may require, from time to time, legislative action? And if they of the North required years to perfect their systems of education, where they are free from the two most serious and almost insurmountable difficulties under which we labor, viz., the sparcity of population and inequalities in property, how can we expect to fall at once upon a thorough and efficient system? All things show not only the indispensable necessity of such an officer, as the system could not work without a head, but that he should be one of the first minds of the State, to adjust the differences and decide the grievances so far as he possessed the power, or where the laws provided no remedies for existing evils, to be able to suggest for the action of the legislature, such other and farther provisions as would most effectually meet the difficulties.

The salary of this officer is placed by the bill on an equality with any other official of the State, in order to command the best talent of the country. To a thorough knowledge of the existing systems of instruction in every part of the world, and the theory and practice of teaching, the commissioner should combine, in no ordinary degree, legislative, executive and judicial talent. He should be a man of eloquence, as well as a man of business, who might, as occasions demanded, rise in speech to a just appreciation of the vast interests of this subject, or descend, when necessity required, to the minutest details of business in all its branches.

Let us by the passage of this bill, make a commencement to a system of Common Schools for Georgia. Let us on this day lay the corner stone of an edifice, which, when completed, will be the honor and pride of the South. In the name and in behalf of the 156,000 Georgians, between five and twenty years, who are growing up in ignorance of the duties and relations of civilized life, I demand it. In the name and in behalf of the 42,000 of my countrymen, over the age of twenty years, who are daily hurrying to the grave, without being able to read for themselves even the "way of eternal life," I demand it. Finally, in the name and in behalf of my native State, which we proudly call "the Empire State of the South," I demand it. And in what, pray, does her Empire consist? In lands and tenements, in fields and stocks, in railroads and copper mines, but not in that which in value far exceeds them all, the results of cultivated intellect. It is an Empire of matter, not of mind, of darkness, not of light. Enlighten it—efface from her escutcheon that foul blot which the census discloses, or never call her again the "Empire State of the South."

ILLINOIS.

Report of the State Superintendent of Common Schools [Ninian W. Edwards] *to the General Assembly of the State of Illinois, Dec.* 10, 1854. 55 pages.

The principal portion of this document is devoted to an "*Act to establish and maintain a System of Free Schools*," which the Superintendent was instructed by the Legislature to draft. We glean a few statistics respecting the means of support ing the schools.

STATISTICS. Amount of School, College and Seminary Funds,	$2,953,594
Interest of do.,	196,281
Sum raised by tax in 97 counties,	42,705
Amount of money paid for Teacher's wages in 79 counties,	308,385
Number of organized School Districts reported	4,125
Number of White Children under 21 years,	407,238
Number of " " at school,	186,371
Number of Schools,	4,215
Average monthly compensation of teachers—male,	$25
" " " female,	$12
Length of School Term in 1854, in months,	6

SCHOOL LAW. The new School Law reported by the Superintendent, and adopted substantially as reported, by the Legislature, provides,

1. For the election by the people of the State Superintendent with very large powers.

2. The support of the schools established under the act out of the avails of funds set apart for that purpose, and a tax on the property of the State and of several townships.

3. For holding School Conventions and Teachers' Institutes

INDIANA.

Fourth Annual Report of the Superintendent of Public Instruction [Caleb Mills] *for the State of Indiana. February* 11, 1856. 126 pages.

This document embraces besides the report of the Superintendent, an Abstract of Township reports; Summary of the same by Counties; Exhibit of the Colleges; Circulars of Superintendent to township officers; Answers to Questions on the School Law; Exhibit as to the cost of the Township Libraries; Catalogues of Books purchased for Libraries; Premiums offered for School structures, &c. We shall make our extracts with a view of bringing out some of the peculiar features of the new school law, established in 1851, and modified in 1854.

PROGRESS OF THE SYSTEM. Though the cause of popular education in Indiana may be in a transition state, yet it is rapidly evolving into order, symmetry and efficiency. Its various strata are gradually assuming their proper position, and the due relations of a well defined system. The primitive elements may indeed bear traces of the throes of ignorance and the upheavings of selfishness in an ante-constitutional period, but the genial influences of the light and heat of Christian patriotism, are rapidly clothing even these volcanic scoria with a soil that promises, at no distant day, a rich and abundant harvest.

During a tour through ten counties, I had the pleasure of a two hours' conference with township trustees and other friends of education in the several counties. The zeal and interest manifested by many of the township boards, indicated a proper appreciation of the cause, of which they were the official representatives. A ride from five to twelve, fifteen, and eighteen miles, in order to be present at the aforesaid conference, the questions asked, and the information communicated by more or less of these trustees, show that the educational interests of some of the townships are in good hands. The aforesaid interviews furnished opportunities, not only for personal interview and acquaintance, but also for the acquisition of much minute and valuable information relative to the real workings of the system, and the estimation in which it is held by the masses. When the weather permitted, a majority of the townships in most of the counties were represented at these conferences by one or more of the members of their respective boards. Four of the five townships of one county were represented by eight members of their boards, who traveled eight, ten, twelve, and eighteen miles. Two lectures were delivered in each of the said counties except one. This omission was occasioned by the necessity of accomplishing one of the three stages of travel to the next county, after the delivery of the one o'clock address. Though such an exploration of each and all the counties in the State, which I contemplate accomplishing before the close of my official term, will disclose much to dishearten, it will also bring to light much to cheer, stimulate and assure us of the ultimate triumph of the cause. The people of Indiana are in earnest about their schools, and will do all that is necessary, when satisfied of that necessity. Facts, figures, and information will not be lost on the public mind. The influence of former efforts in this direction is manifest, and is daily becoming more and more apparent. Some counties are more wide awake than others. Some townships exhibit no dubious signs of progress. They are actually in the field at work in some corporations, while in others there may be only tokens that the preliminaries of the day's toil are under discussion, and occasionally not even the chimney betrays any signs of awakened intelligence within There are all grades of interest felt in the cause of popular education, and manifested by the appropriate symbols, from the unhewn log house to the three story high-school edifice. The unhewn log and the unchinked wall is one type of progress, even though it be somewhat primitive and rude, yet it is real, and not unfrequently does its rudeness betoken the rapid approach of a more worthy and significant substitute, and even this, in due time, will give place to a higher style of architecture.

EQUALITY OF SCHOOL PRIVILEGES IN THE SAME TOWNSHIPS. On the former principles of distribution, the blessings of the public funds have been dispensed to their recipients in the several districts, in proportion to their numbers, without any modifying circumstances, which becomes in fact, a practical exclusion, to a greater or less extent of the people of sparsly settled districts, from an equitable participation in a common educational patrimony. The correction of this evil has long been an object of earnest desire, but had been hitherto unreached. The incorporation of it in our revised code, may be justly regarded as an evidence of progress, as well as an act of impartial justice. Does the State undertake to furnish tuition for all her youth? Let not the amount of that instruction depend on

the mere circumstance of numbers congregated in a given school-house, or the children enumerated within certain geographical limits, denominated districts. The great cardinal principle that underlies and indeed characterizes our educational system, demands that a school of thirty pupils should be taught as long a period, and in as thorough a manner, as one containing sixty scholars. The interest of the township require it, the claims of justice imperiously call for it, and the plighted faith of the State demands it.

NEW SCHOOL-HOUSES. The liberal exercise of the power by township trustees [to assess the necessary tax for the erection of school-houses, and furniture under certain restrictions,] within the last nine months, indicates the estimation in which it is held. The unique provision for meeting emergencies in this department, by authorizing the reception of donations, that shall be reimbursed to the generous and public-spirited donors, in the form of exemption from future taxes for like purposes to the full amount of said contributions, has proved a very popular and acceptable device. It has enabled township trustees to undertake the erection of all the school structures needed in the corporation without delay, affording the liberal citizens the opportunity and satisfaction of doing a generous and praiseworthy deed, and giving the more penurious the blessed assurance that they shall not be ultimately overlooked, nor be deprived of the pleasure of a due participation in this good work. This peculiar feature is not merely prospective, but in a modified form, is also retrospective in its operation. It has aided in divers instances, to cultivate a generous and liberal spirit, both directly and indirectly, and will doubtless prove a no unimportant educator of both youth and age. One of the most pleasing signs of the times and marks of progress, is the amount levied for this purpose in no less than four hundred and thirteen townships. The aggregate assessment for this sole and exclusive purpose in sixty-eight counties, is $314,272.63, a sum indicative of a somewhat primitive condition in reference to school structures, and also highly significant of the real temper and feelings of our people relative to their educational interests.

CLASSIFICATION OF TAX-PAYERS. It is worthy of notice that the classified exhibit of tax-payers in seven hundred and forty-eight townships and seventy-three counties, shows that almost five-ninths pay on $500 and less, and more than two-thirds pay on $1,000 and less. This expose discloses the interesting and significant fact, that even a three mill tax would impose on almost five-ninths of the tax-payers of Indiana, the burden of an assessment varying from one cent to one dollar and fifty cents, and nearly two-ninths would pay only from a dollar and a half to three dollars. Thus it is evident that the masses would not be oppressed by such a tax, when the duplicate shows, that a levy of three mills on a dollar for school purposes on the property of more than two-thirds of said tax-payers, would vary from one cent to three dollars. In forty-six counties there are reported to be *thirty thousand and ninety-seven* non-residents, whose aggregate property scattered over the State, is safely reckoned by millions, who would, on such a specific assessment, be required to contribute to the moral and intellectual elevation and improvement of the rising generation of the commonwealth, within whose limits their landed estates are located. Many of them would regard such a tax as a good investment, and consider its expenditure as really enhancing the value of their lands tenfold the amount of the assessment. This remark is not the result of mere random conjecture, but is based on the known and expressed views of at least some of the more wealthy of these tax-payers. If others of them entertain less generous and intelligent sentiments, their speedy conversion would be no detriment to themselves or the commonwealth.

CARDINAL PRINCIPLES OF THE SYSTEM. Its cardinal principles, State provision of tuition, and township oversight and control of the schools, and the erection of school structures, meet with a cordial approval, and promise to realize all reasonable expectations.

A FREE SCHOOL FOR SIX MONTHS. It requires no special logic to prove that a six months' free school is cheaper than a three months' term. A six months' school we must have, for nothing less will satisfy the masses. If only three months of this period be free, the balance must be at the expense of the parents of the pupils. We have shown from data that can not be questioned, that more than one-half of the tax-payers of this commonwealth, pay on $500 and less, and more than two-thirds pay on $1,000 and less. Thus it appears that an additional three months' free school, would cost the aforesaid one-half of our citizens, from one cent to one dollar, and that none of the above two-thirds would have to pay more than two dollars. This would be the expense of the supplementary three months' free school to the above-named portion of tax-payers. But who of all the said one-half could get a child taught three months for his school assessment of one

dollar, or any fraction of this monetary unit? A majority of the above-described two-thirds, would be subjected to the expense of from five to fifteen dollars to maintain, in a three months' subscription school, the same children that had attended the free school a like period. Either the parents' pockets or the childrens' intellectual culture must suffer by the failure to provide means for a six months' free school, in the rural portions of the commonwealth.

QUALIFICATIONS REQUIRED IN TOWNSHIP TRUSTEES. The conviction ought to be both deep and universal in every township in the commonwealth, that the township trustees should be selected with primary reference to their fitness and capacity to take charge of and properly manage the educational affairs of the corporation. The other interests committed to their charge are altogether subordinate, and secondary in importance. They should be men of large experience, practical wisdom, liberal views and unquestioned firmness. All these qualifications will find ample verge and scope in the discharge of their official duties. The location of the sites for the school-houses, the erection of these structures of due dimensions, convenient plan, tasteful finish and appropriate furniture, and the employment of competent teachers, demand the best talent in the township. The interests of the corporation must control the selection of the sites; the comfort and progress of the pupils must dictate the character of the structures and the qualifications of the teachers. What else than rich experience, practical wisdom, generous sympathies, and unflinching firmness, will be competent to meet such responsibilities and discharge such duties? Emergencies will arise that require prompt action, demand a clear and satisfactory reason for the course adopted, and call for a mild but firm resistance to demands of ignorance and the clamors of selfishness. Trustees must be men of nerve to resist the one, and of intelligence to answer the other.

TEACHERS' INSTITUTES. The first organized effort made to elevate and improve the qualifications of teachers, in the older States, was teachers' associations, partaking more or less, in different localities, of the character of teachers' institutes. This waking up of *d'esprit de corps* attracted legislative attention, and led to public provision for their aid and encouragement. This aid and comfort gave them new life, reputation, and efficiency, which rendered their mission more stable and useful. The nature of their operation and the character of their results, indicate their true sphere, and proclaim them harbingers of good rather than the real substantial blessing sought. As there must be a dawn before the full orbed luminary appears, so the teachers' institute has always heralded the normal school.

The brief existence and temporary results of institutes hitherto held in our State, furnish unmistakable evidence that the time has come when legislative provision should be made to give them power and permanence. Let a competent and experienced corps of instructors go into thirty counties of the State, and hold an institute for two weeks in each of them, with a due accompaniment of popular lectures, and it would accomplish tenfold more good than the same expense could possibly effect in any other way. We may as well expect the sun to rise unheralded by the dawn, as to think that normal schools will come into being and flourish without this preliminary instrumentality.

SMALL AND LARGE DISTRICTS CONTRASTED. The early experience of other States warns us against the multiplicity of small districts, while their more recent policy and practice impel to an imitation of their present example. The superior wisdom and economy of the large over the small districts, become apparent on a fair exhibit and impartial comparison of their legitimate results. A township of thirty-six square miles, may be divided into districts of two miles square, as many of them really are. Thus carved, it presents nine of these little cosey, *quasi* corporations, with a corresponding number of children, often so small as to forbid the establishment of a school, or if established, so insignificant as to be-little the enterprise, and leave an unfavorable impression of its real character and consequence on the public mind. These nine schools, enfeebled by their numerical poverty, languish, droop, and become so attenuated, that it is difficult to ascertain whether there is any literary life and activity in either teachers or taught.

A more legitimate conclusion from given premises, was never reached, than that small districts ensure small and ill furnished structures, short terms, incompetent teachers and corresponding instruction, lifeless schools and unawakened intellects, general apathy and partial disgust at the whole system. This result has been realized, demonstrated, stereotyped and widely circulated in the older commonwealths, known and read of all men. This is a truthful picture of one side of the medal, now let us look at the obverse.

The aforesaid township may also be divided into districts three miles square. Thus arranged, it presents four districts of sufficient amplitude to authorize the

erection of more spacious and convenient houses, the employment of more competent instructors, and justify the expectation of sufficient amount of raw material to tax the skill, rouse the energy, and encourage the best efforts of the literary manufacturer. This territorial division would subject but very few of the pupils to the necessity of going more than a mile and a half from the parental roof. The exercise incident to that amount of daily travel, would be an important item in their physical education, and so far from being detrimental to their literary progress, it would rather promote it, by creating a more lively sympathy between the intellectual and physical natures, and calling into more vigorous and lively action their respective powers. We have already too many of these hot house plants. Let us give our children and youth a little more physical power and energy, by subjecting them to a more hardy discipline. A walk of a mile, or mile and a half, every morning, inhaling the pure, life-invigorating air of heaven, would not only damask their cheeks and call the whole muscular system into healthy exercise, but it would impart corresponding activity to the mental powers. Such daily excursions could not fail to cultivate a familiarity with the scenes of the outer world, and awaken a sympathy with the beauties of the material universe and its Great and Glorious Author. Under such a nurture, our sons and daughters would be something else than mere shadows. There would be physical development that would give them, at least, a pre-emption title to the name of men and women, when they reached maturity.

The youth of a township trained under the discipline of such a policy, would possess a character for intelligence, enterprise, and a hearty sympathy with true genuine progress, that would not fail to proclaim their fathers' wisdom, economy, foresight and enterprise. Under such an occasional administration, the schools would be worthy of the name, teaching merit the appellation of a profession, the houses be less dubious indices of the purpose of their erection, the value of knowledge more highly appreciated, and the import of mental discipline more clearly comprehended. The economy of such a policy is too obvious to require any financial exhibit, and the wisdom too manifest to need any explanation. Its introduction would be a marked era in the history of popular education, and its universal adoption would be nothing else than the veritable golden age of intellectual culture, benevolent impulse and philanthropic enterprise.

TOWNSHIP LIBRARIES. The operation of the library feature of the system, [*the appropriation of the avails ($186,327) of a one-quarter of a mill property, and a twenty-five cents poll tax for two years to the establishment in each township of a library, amounting in the aggregate to* 226,213 *volumes,*] as far as heard from, has been exceedingly happy, disappointing the predictions of its enemies, and the fears of its timid friends, and even transcending the most sanguine expectations of its more ardent advocates. The interest awakened by its use, and the estimation in which it is held by adults, as well as youth, confirm the wisdom that gave it a township character rather than a district mission.

The parent should not look in vain to the township library for instruction, adapted to his wants and suited to his tastes and necessities. The teacher should find in its treasured stores the ablest works in his department of labor, embodying the general results and experience of the best minds, whose energies have been concentrated in the educational work. It should furnish entertainment for the hours of relaxation, instruction for the thoughtful and reflecting moments, amusement for the wearied mind, and nourishment for the roused and inquisitive intellect. The man of scientific tastes and pursuits, should be assured of finding on its shelves something kindred with his mental aspirations. The artisan should be lured to consult and ponder its pages, in confidence that he will not go away unblest, and that familiarity with its treasures can not fail to kindle the ardor of his pursuit and fire the fervor of his zeal. Men of all professions and employments, of varied tastes and tempers, likes and dislikes, should feel it to be a common center of attraction, a general fountain of knowledge, and a common bond of universal brotherhood. A library of such antecedents and concomitants, can not prove else than an effective and permanent coadjutor in any system of popular education. There are many pleasing tokens that it has entered on a glorious mission, and the indications of the high estimation in which it is held, and the usefulness it is accomplishing, are neither few nor insignificant. The short time that has elapsed since the books were apportioned to the townships, opened and put in circulation among the people, forbids any general collection of library statistics. It may not be amiss in this connection, to present a specimen of what has been received, relative to its operation in various parts of the State. One township reports 1,230 volumes taken out in three and a half months; another 667 in four months; another 1,242 in nine months; another 1,050 in six months; another 700 in nine months; another 1,540 in ten months; another 2,127 in eight and a half months. No two of the said townships are in the same county, and none of these libraries contained more than 330 volumes.

Such expressions as the following, will not be lost on the public mind: "Nearly all the books have been drawn out as much as twenty-five times, many of them oftener, and quite a number of the books are not permitted to remain in the library an hour before they are withdrawn." Says another: "Our library is doing more good than anything that has ever been done by the Legislature of this State. Great interest is manifested in it here."

SCHOOL JOURNAL. The State Teachers' Association, at their annual meeting in December, resolved to undertake the publication of a Monthly Journal, and made the necessary arrangements for the issue of said serial the current month.

COLLEGES AND COMMON SCHOOLS. The Superintendent has had the pleasure of attending the commencement exercises of four of our five colleges. Though these institutions are the products of private associated enterprise, over which the State is entitled to no oversight or control, except of one, yet the head of this department has had too long experience of college labors, and cherishes too deep and lively sympathy with those in charge of these institutions, to entertain for a moment the most distant suspicion that such visits would be any less agreeable to their respective Faculties than to himself. These faculties cherish a much more cordial interest in the advancement of popular education, and have a much more direct and effective agency in its real progress, than the superficial observer supposes, or is disposed to acknowledge. Its history in Indiana would put such sapient souls to the blush, were the curtain withdrawn, that hides from public gaze the labors of these instructors in the recitation room and in the study, through the pulpit and the newspaper columns. The baccalaureate addresses of their five Presidents for the last twenty years, delivered before popular assemblies, have accomplished more to rouse the public mind and give a right direction in reference to its educational interests, than the combined efforts of all the ignorant, prejudiced, self-conceited college croakers since the flood. These Presidents and their associates have done more through the press and popular lectures, though they may seem to the one idea man to be few and far between, than they will ever get the credit for from the casual observer. Their own labors in "keeping college," have too much of a family likeness with the school-master's vocation, to permit them to be unsympathising spectators of his toils and degradation. It is gratifying to perceive the gradual diminution of the popular prejudice against colleges, so industriously fostered by some having no experimental knowledge of their benefit, and by others, who, having enjoyed the opportunity of a thorough training, give incontestable evidence of the indolence and negligence of their own college life, and betray a want of either the capacity to appreciate, or the honesty to acknowledge their obligations to those whose mistaken kindness tolerated the graduation of such learned dullness.

Liberal in their spirit, generous in their aspirations, and enlarged in their views of education, they constitute a fraternity that will prove both an ornament and a blessing to the commonwealth. The sympathies of our people cluster around them, and they have grown up to their present maturity and usefulness under the hardy discipline of indigence, and been blessed with no small share of its trials and embarrassments. Their pioneer life and triumph is an ample guaranty of their future mission. The thousands of teachers that have already gone forth from them, are but pledges of the thousands still to follow. Colleges, academies and schools are but parts of a great national system of popular education. Numerically considered, the common schools may be regarded as the base of the pyramid, the academies and colleges the symmetrical and graceful superstructure, whose summit reflects the dawning rays of science through many a retired valley and sequestered nook, and around whose top have ever lingered the twilight beams of the departing day of popular illumination. Historically and logically considered, the apex is the true base, however paradoxical it may seem. Colleges give rise to academies, and these in turn nourish and foster schools. Both in our own and European countries, the establishment of colleges *preceded* the introduction of any system of common schools. The past and present of all these nations confirms the truth and soundness of our remark. The date of the foundation of many of their venerable Universities *antedates*, by centuries, the maturity of any wise provision for the training of the masses. Four of our six colleges sprang into being in the *second* decade of our existence as a commonwealth. What was there in being, at that period, deserving even the name, much less possessing the character of a wise and efficient system of common schools in Indiana? Let the true sequence of causes be understood and there will be no difficulty in adjusting their relative claims to public regard, and their true position in the series. The exaltation of neither can be permanently promoted by an undue depreciation of the other. Colleges and common schools, one in their mission, indivisible in their results, now and forever, should be our motto.

ACADEMIES AND FEMALE SEMINARIES. Many of them will doubtless be absorbed by the silent operation of our system, as it evolves the several parts of an efficient graded school. Others will maintain their identity and independence, and accomplish their appropriate mission.

PREMIUMS FOR THE BEST SCHOOL-HOUSES. It is both an interesting and significant fact, that the State Board of Agriculture have kindly entertained the suggestion, to offer a premium for the best high school edifice, another for the best furniture and apparatus, a third for the most tasteful and convenient rural school house, and a fourth for corresponding furniture, fixtures and enclosure. The following list has been adopted:

For the best high school building, complete and ready for occupancy, including external finish and internal arrangement, embracing, also, enclosure, facilities for ventilation, completeness and economy of heating the same, a copy of Colton's Atlas of the World in 2 vols. folio, valued at $27.00, will be given as a premium.

Competitors for this premium must submit a perspective view of their building, plat and inclosures, accompanied with ground plans of the several floors, with a section exhibiting the ventilation and heating arrangements, together with the external dimensions of the edifice, its several stories and apartments.

For the best rural school-house, complete and ready for occupancy, including external finish and internal arrangements, embracing also, a lot containing not less than half an acre of land, the enclosure of the same with appropriate out buildings, facilities for ventilation, completeness and economy of heating the same, a pair of Globes, valued at $25.00, will be given as a premium.

Competitors for this premium must submit a perspective view of their building, lot and enclosure, accompanied with ground plans of its school floors, with a section exhibiting the ventilation and heating apparatus, together with the external dimensions of the edifice, its several stories and apartments.

For the best high school furniture and apparatus, including desks and chairs for teachers and pupils, blackboards, maps, globes, and other geographical, astronomical and philosophical apparatus, in value not less than $100, a copy of Smith's Dictionary of Greek and Roman Biography and Mythology in 3 vols. 8 vo., valued at $15.00, will be given as a premium.

For the best rural district school furniture and apparatus, chairs and desks for teachers and pupils, blackboards, maps and other geographical and astronomical apparatus, in value not less than $50.00, a copy of Webster's Quarto Dictionary and Lippincott's Gazetteer, valued at $10.00, will be given.

Competitors for the aforesaid premiums must furnish the committee of award a perspective view of their respective school rooms, exhibiting said furniture and apparatus, as far as practicable.

The appropriateness and practical value of these premiums will be readily seen. If good taste, neatness and convenience in farm houses, barns and other appurtenances of the farm, are legitimate objects of encouragement for the State to foster, surely school architecture, furniture and enclosures may claim a modicum of her maternal regard with equally promising hopes of happy results. Such an enlightened policy and liberal views will be appreciated, and the continuance of them for the next ten years will secure memorials of their wisdom, even more durable than silver pitchers, and more extensively known and valued by the masses than the most exquisite production of the graver's art. Under the stimulus of such inducements, the prompting zeal of an intelligent appreciation of their intrinsic worth, and the guidance and suggestive power of superior specimens of school architecture, we may hope to see structures rise, both in our towns and cities, and also in the rural districts, that will indicate to the passing stranger the good taste and public spirit of the parents, and prove a rich source of instruction and comfort to the pupils and of joy and rejoicing to the teachers.

THE BIBLE A TEXT BOOK. In science there will necessarily be progress, and consequently a change of text books will occasionally be demanded. But the *text book* in morals is the production of an Author, whose wisdom needs no revision, whose knowledge is susceptible of no increase, and whose benevolence admits of no question. The Bible, without note or comment, is installed in the schools of Indiana, and its continuance as the moral standard in these nurseries of her future citizens, will as surely mark the period of her prosperity and grace the zenith of her glory, as its exclusion would prove the precursor of her decline, the herald of her shame.

SWAMP LANDS. The school system was made the residuary legatee of the swamp land estate. Present appearances indicate that the heir of this noble bequest will find among its assets, after the debts of the estate are paid, little else than the good will of the testator and the kind wishes of his executors. Though the swamp land fund it is believed, will be completely exhausted in rendering

these lands fit for agricultural purposes, yet its conversion into material ditches will not be without a favorable connection with the educational interests of the State. Thousands of acres will thus be redeemed from the dominion of frogs and fever miasma and converted into fields loaded with the rich fruits of the earth, or clothed with flocks and herds more numerous than ever graced the enclosures of the man of Uz. The revenue ultimately arising from the agricultural improvements of these lands, will doubtless prove more extensively and permanently useful to the cause of popular education, than the entire proceeds of their sale would have effected had they all been added to the school fund. Though this fund of magnificent dimensions has been literally *drained*, yet its underdrains will impart increased fertility to the educational manor, whose proceeds will be an ample equivalent for all disappointed hopes in that direction.

SCHOOL FUND AND RESOURCES. The property of the State, pledged by the constitution to the cause of popular education, may be regarded as the most reliable funds for the support of our schools. The Legislature have appropriated the avails of a one mill tax on said property for this purpose, and have also made a levy on the polls, for the same object, to the amount of fifty cents on each, to remind the owners of such personal estate that its security and value would not be diminished by the diffusion of knowledge; and therefore it might properly be taxed for its own protection and the general good. One collateral result of the aforesaid assessment will be the tendency of it to awaken in the minds of such property holders a more deep and decided sympathy and interest in the success of a system pledged to the training of the masses and the general diffusion of knowledge.

The financial exhibit of educational funds will be as follows:

Real and personal estate assessed in 1855,	$302,310,889.00
Number of polls in 1855,	178,877
School assessment on the above amount,	$302,310.83
School assessment on the polls,	89,438.50
Gross amount from the above sources,	$391,749.33
Aggregate of the school funds as reported last year, but not included in the above amount,	$2,559,308.12
This fund is loaned at 7 per cent., and the officers' fees for receipt and disbursement are 5 per cent. of the interest, which is about one-third of 1 per cent. of the interest on the amount loaned, and therefore the net interest on the school fund, at six and two-thirds per cent., will be	$170,620.54
Amount of the above income,	$562,369.87
From this deduct delinquencies at the rate of school tax delinquencies of 1853–4, and fees and traveling expenses, at 16 two-thirds per cent.,	93,728.31
Net amount from the above sources,	$468,641.56
Amount of the unexpended balance of school funds in the treasury, Oct. 31, 1855,	32,073.91
One-half of the delinquent school tax of 1854,	42,616.77
Probable amount for distribution in May, 1856,	$543,332.24

SCHOOL TAXES. It is to be hoped that no citizen will permit himself to be misled by the miserable, pitiful and unfounded charge, that we are burdened and oppressed with school taxes, and have a less period of instruction for the same means than under the old order of things. Facts and figures can not be tortured into the service of such lovers of the dear people. They shun them as the owl does the mid-day sun. The school system shrinks from no just and truthful scrutiny, and its advocates decline no honorable challenge to its defense. The statistical portion of this report contains facts, unquestioned data, fully authorizing the statement, that more than one-half, almost five-ninths, of the tax-payers of Indiana pay on $500 and less. On the present assesment of one mill on a dollar of property, and fifty cents on the poll, the school taxes of that portion will vary from fifty cents to one dollar, and no more. Did any of that five-ninths get their children taught three months for that sum? The aforesaid data also demonstrate that more than two-thirds of our tax-payers pay on $1,000 dollars and less, showing that the school taxes of the said two-thirds will range from fifty cents to one dollar and a half and no more. Who of this majority of our citizens ever got *one child* properly taught three months, for even the maximum of the aforesaid scale? Are such taxes for tuition burdensome? Can such assessments oppress the masses? Shame! where are thy blushes? So much for tuition. Now let us look at the school-houses. If they already exist in sufficient numbers and in proper condition, there will be no school-house erection tax. If they are not found, it is quite pertinent to enquire where are those long and excellent schools so

feelingly remembered and so highly prized, taught in the golden age so much deplored as irrevocably passed? The echo reiterates the enquiry, that will be much more easy to repeat than satisfactorily answer. If we have no school-houses, tuition funds will be of little avail. I have little faith in any golden age of schools without houses, either in the past, present or future. The expense of the school-houses belongs to the croakers side of the question in dispute as well as ours. This is no misnomer, for when the truth is reached, it will be found that the masses have little or no sympathy with such sentiments. Is it doubted? Look at the *five hundred and eighty eight* school houses built last year, valued at $166,655. Does the assessment of $314,272.63 for school-house erection in four hundred and thirteen of our nine hundred and forty-one townships during the last year and now in process of collection, look much like sympathy?

Now for the library assessment that is breaking the camel's back. There is nothing like facts and figures in the solution of such questions of public economy. A *quarter of a mill* property tax, and a *twenty-five cents* poll-tax, is the crime charged against the revised school law. In the defense of our client, we shall summon as witnesses of his innocence, the aforesaid two-thirds, I might more properly say, three-fourths of the tax payers of this commonwealth. They all testify that the most they ever knew the prisoner demand of any of the aforesaid witnesses was *fifty cents*, and that his claim on more than two-thirds of the witnesses varied from *twenty-five* to *thirty-seven and a half cents*, and no more. With this testimony, we cheerfully let the case go the jury, confident that no twelve men can be found, who under the solemnities of an oath, and in view of the evidence, uniform, consistent and unanimous of such a body of our best citizens, will return a verdict of guilty. They are not willing to leave their seats. Their verdict is written on their very countenances. The court may as well call on them at once for their decision, without the formality of retiring. Is the prisoner guilty, or not guilty? Not guilty! This verdict will be pronounced just and righteous by the five hundred thousand readers of township libraries.

Another popular clamor, very intelligently raised, and very patriotically reiterated, is the wholesale and sweeping assertion that "the officers eat up the funds," "the locusts of Egypt consume the educational substance of the people." If this be true, it is time the Augean stable was thoroughly cleansed. But let us look at the facts in detail. The Superintendent is regarded by some as the greatest incubus, and therefore we will examine his case first. He is a constitutional officer and not the creature of statuary power. As a State officer, his salary is paid, not from the school fund, but from the fund appropriated to the payment of Executive officers, and therefore the school fund is not burdened with his salary.

HOPES FOR THE FUTURE. Our school system possesses elements of sterling worth and real power, and when fairly tested will vindicate its claims to the cordial sympathy and generous support of every lover of progress. The facts disclosed in this report show, that there exists a feeling of confidence among the people of its stability, and a growing conviction that it is worthy of all the material aid that it requires to devolop its capacities for good. Its friends will find something in this annual document, that may be of service in carrying on another campaign in its defense. Foes it has as well as friends, and every transfer from the ranks of the former to those of the latter is a two-fold addition to its strength. Let not the zeal and courage of its assailants outstrip the ardor and valor of its defenders. The ardor of the former should provoke, as well as encourage, the fervor of the latter. Firm, persevering and unfaltering, in our purpose and efforts, we have no fear of an unfavorable result. Confident of a happy issue to patient continuance in well-doing, let the friends go forward, remembering, that "deeds, not words," is the proper test of friendship to the cause of popular education.

Once let the public mind settle down in the conviction that the school system needs but a thorough and candid trial to evince the wisdom of its fundamental principles, and there will be no difficulty in gradually incorporating into its structure all those improvements that are the natural results and legitimate sequents of its great cardinal characteristics. Let the masses awake to the true conception of its relations to their best interests, and a cordial co-operation in promoting its progress, and our fondest expectations will be speedily realized. This report can not be more appropriately closed, than with the remark that on its pages will be found ample encouragement for effort, and abundant evidence of the necessity of prompt, wise and unremitted labor in the cultivation of a field, whose mental fruits shall be as imperishable as the intellectual soil that gave them birth, and whose moral products shall prove like flowers of heavenly perfume destined to bloom and shed their fragrance on earth, till transplanted to the paradise above.

KENTUCKY.

Annual Report of the Superintendent of Public Instruction, [Rev. J. D. Mathews, D. D.,] *submitted Feb. 8th*, 1856. 162 pages.

The origin and growth of the School System of Kentucky, and especially its rapid development under the superintendency of Rev. Robert J. Breckenridge, D. D., from 1847 to 1852, against Executive, legislative, and to some extent popular opposition, is one of the most interesting chapters in the History of Public Schools in the United States, and is full of instruction to those who are laboring to build up a system in States similarly situated. Before presenting a few extracts from the document above cited, we will introduce a statement drawn up by Dr. Breckenridge on resigning his office, in which he submits his views as to the progress, condition, and prospects of the system in 1853. The School Law in the Revised Code to which reference is made, was adopted in 1851, against the earnest and able opposition of the Superintendent, and inaugurated in some respects a new policy. In giving a history of the School System of Kentucky in a subsequent number, we shall have occasion to consider these points and to quote Dr. B.'s opinions. The following is the substance of the statement.

PROGRESS AND CONDITION OF THE SYSTEM UP TO 1853.

1. Every county in the State is completely organized, in so far as that it is believed a School District covers every neighborhood in the Commonwealth. It has cost an enormous amount of labor and pains, extended over many years, to effect this object. In order to accomplish it, various changes have been made in the school laws, from time to time, in various particulars, which need not be recapitulated here. The only general suggestions I have to make on this part of the subject, are; 1. That no district ought to be allowed to contain more than about 50 children; and 2d. That all towns having a separate school system of their own, ought to be permitted to report directly to the Superintendent, instead of circuitously through the county Commissioner, as if the whole town were a single district. The former change would probably greatly increase the number of pupils, who actually attend school, as it would necessarily greatly multiply the schools themselves; and would be in every point of view a most desirable improvement of the school system, and in its present condition, very easy to effect. The latter change would relieve the schools in the towns of a great deal of wholly needless trouble and embarrassment, and put them on a footing to make greater efforts to enlarge and perfect themselves. The towns are naturally to be expected to take the lead in perfecting a local system of public education, and the highest policy dictates that they should be aided, not obstructed, in such an effort.

2. The school laws, as they relate to Commissioners, Trustees, Teachers, and the ages of pupils, do not need alteration. As they stand with regard to all those points, they only need to be regularly and efficiently executed. Touching other points, such as the office and duties of the superintendent, the duration of the schools, the condition of the schools as absolutely free schools, under all circumstances, they need very serious reconsideration. 1. As to the office of Superintendent, the school law in the Revised Code, made very considerable changes, every one of which was improper and injurious. Besides putting the matter as relates to that officer precisely as it stood before that law passed, in my opinion, the highest interest of the school system demand, that the Superintendent should be placed really, as well as nominally, at the head of the whole system. He ought to receive a compensation adequate to his duties and responsibilities; he ought to have an office, and one or two clerks, at the seat of government; and he ought to be held accountable for the faithful and enlightened execution of the system in every part of it. There is nothing more certain than that the system can not be efficiently executed, much less perfected, without an able and faithful Superintendent, whose office should be, not that of a clerk to the Board of Education, nor that of countersigner of the calculations of the Auditor, but that of head of a most important interest, under the Executive Department of the State. I have heretofore stated officially, that nothing but the deepest interest in my work, induced me to hold the office of Superintendent a single hour, after the passage of the school law in the Revised Code. 2. I have repeatedly suggested in my reports to the legislature, that in my opinion, the term of three months in every year,

fixed by law as the required duration of the public schools, is, as a uniform standard, too short. It would be a great improvement to change the law in such a way as to grant aid upon some principle that would hold out inducements to continual improvement in the schools. Say aid to every school taught three months in every year; further aid to those taught four months, and so on up to six or eight months, each year; increasing a little the State allowance, in some fair proportion to the duration of the schools; and upon some general principle, making the allowance depend, not upon the number of children *living* in the district, but upon the number actually attending school. The question is simply between short schools, nominally large, but really small, and long schools of moderate size, but precisely as large as they profess to be: between a method by which education will be actually brought in reach of all, and actually secured to all, and a method by which large numbers are really not in reach of it, and those who attend the schools are not taught long enough each year to reap the proper advantages which ought to be afforded them. 3. The remaining question, namely, that of the *absolute freeness* of all the public schools, is one of vital importance. I have discussed it at large in my reports, especially in the one for 1851. To teach 220,000 children three months in each year, supposing them to be scattered, as they must always be, through many thousand districts, and supposing the average of those districts to be about fifty children, can not possibly cost less than $500,000 a year, and most probably must reach $700,000. Add another quarter to the period of yearly instruction, which the best interests of the Commonwealth require to be done, and the yearly cost must equal, and may largely exceed $1,000,000. Now the question for the State to determine is, whether it is better to provide by law for the raising of the amount of money necessary to make the public schools absolutely free, or to provide so much money only as will enable the people, by their own voluntary efforts, added to the State aid, to keep up the public schools, for such a period each year, as the law may prescribe. My own opinion is clearly in favor of the latter principle and method; namely, giving State aid to each locality, and leaving each locality to decide, according to its interests or wishes, the further question of absolute freeness. The school law in the Revised Code, makes the schools absolutely free, but does not provide the means of supporting them on an average as much as one month in each year, and only keeps up a forced appearance of doing so, by making the districts so large as virtually to exclude the third part of the State from all benefit from them.

8. The mode of distributing the public school fund before 1852, was simple and admirable. A system perfect in its principles, and exact and secure in its practical working, had been carefully and laboriously arranged and applied, and was working with complete success. By it every district received every year, the share allowed to it by law for the school taught in it, and within a few days, or at most a few weeks, these sums were distributed into every part of the commonwealth. The entire unclaimed balance of the school income, being the portion of all children where no schools were taught, was added to the capital of the school fund; and by this means the fund itself was made to increase faster than the ratio of increase of the children of the State. The Revised Code, which changed so many things, changed all this; and so changed it, as I think I have demonstrated in my report for 1852, as to have reached the summit of intricacy.

4. The school fund itself is large and productive, an honor to the State, a monument of public wisdom and virtue, an ample and noble provision, and if properly managed, sufficient for the education of the children of the State. It consists: 1. Of a tax of two cents [since by vote of the people made three cents,] on every hundred dollars worth of taxable property in the State. 2. Of State bonds to the amount of $1,326,770.01. 3. Of 735 shares in the capital stock of the Bank of Kentucky, whose par value is $100 each, $73,500. 4. Of a certain bonus on other Bank stocks, whose value is not capable of being precisely reckoned. The income of this fund ought to be at present about $150,000; and for ten years to come, it ought to average about $160,000; and it ought to increase with the continually increasing value of the property of the State.

5. A vast work has been done for public education in this State. But it has been done under vast opposition, and against vast obstacles. To my predecessors in the office of Superintendent, I have never failed to ascribe a large part of whatever has been accomplished, and to claim for them the respect and gratitude of the people. I have held the office much longer than any of them, and besides what I may have done myself, I have reapt in some degree, the fruits of their labors. What we have all done, is capable of being generally, but distinctly summed up. An immense fund has been created, organized and secured; and when in a moment of political phrenzy it was destroyed, it has been by a glorious series of legislative and popular acts, retrieved, restored, augmented and made sacred. The whole State has been organized into School Districts, and a complete and general system of popular education, in its lowest stage, has been firmly

and universally established. Many thousands of comfortable school-houses have been erected, and many thousands of additional teachers have found honorable and remunerating employment. Many tens of thousands of the sons and daughters of the State have received, in these schools, the first elements of education; great multitudes of whom, but for these schools, would never have received any education at all. And, perhaps, more than all, a public sentiment, and what is better and deeper, a public principle, fixed, general and earnest, has been begotten in the mind and settled in the heart of our people, that the work is a good work, that it can be done, and shall be done. Our Superintendents have not done all this, though without them it could not have been done. The public press, that noblest gift of liberty to knowledge, has done its part. Many statesmen have done their part. Many philanthropists have done theirs. And many virtuous and noble citizens in the private, and not a few in humble walks of life, have done theirs. As for myself I count it one of the most fortunate events of my life, as it will always be one of its most precious reminiscences, that I also have had my share in a work so full of good, and good only.

6. For the further advancement and complete development of the system of public education in this State, an immense work remains to be done. I have never ceased to urge upon the legislature and the people of the State, that although the primary education of all the children of the Commonwealth, in every generation, ought to be considered the first and most important part of the work of public education, yet it was only a part, and moreover, a part which could be accomplished far more speedily and perfectly in its relations to a grand and complete whole, than it could be if attempted as the sole object of our efforts. Until the passage of the calamitous law in the Revised Code, all our laws on the subject of education, were conceived in the spirit of an equal interest in the State, in every grade and department of education, up to the highest, and in the idea of all being parts of a grand and comprehensive movement of society, for its universal perfectionment in knowledge, under the guidance of its own organized force, that is, the law itself. So that in the large views which I have cherished, I have only developed and defended the spirit of those numerous enactments, by which Universities and Colleges have been founded, by which Academies have been endowed out of the public domain, by which Institutions for the Blind and Deaf have been erected at the public expense, and by which in so many forms, and for so long a period, the public treasure has been bestowed, and the public will made manifest, in favor of universal education; universal alike in its subjects and its objects, as far as possible to every citizen, and for every useful part of knowledge. I believe that each one of my six reports to the legislature, assumes or expressly utters this bread, and as it appears to me, only worthy view of the subject; and several of them argue it at length. In a calm retrospect of the whole ground, from the position I now occupy, of a simple but deeply interested spectator, I see nothing to change in what I have so repeatedly advanced on this part of the subject. On the other hand, if the great experience it has been my lot to have acquired during the past thirty years on the whole subject of education, may be supposed to give any weight to my opinions, I frankly declare that I see nothing more plainly than that the interest and glory of this Commonwealth, are both put in peril, precisely in proportion as low and narrow views are cherished, touching the sublime duties which the State owes to her children, in connection with this great subject.

7. It may be that men will not always bear to hear it, and it may be, too, that it is not the part of carnal wisdom always to utter it. But wise and thoughtful men all know it, and they who have toiled in the sacred cause, may not ever be silent and forbear to proclaim it, even where none will hear. There is a glory, greater than the glory of wealth, and power, and arms, and conquest—the glory of loving, getting, cherishing, diffusing, perpetuating knowledge, whereby men may adorn their lot in this life, whatever that lot may be; and whereby, as far as knowledge can, they may be led to know a better life to come.

As some of the points presented above are of vital importance to the rapid advancement of public education, we give a few extracts from the Reports of Dr. Breckenridge for 1851 and 1852.

OFFICE OF SUPERINTENDENT. The office of Superintendent of public instruction was created, by law, as soon as this state embarked seriously in the grand effort to diffuse, universally, the blessings of general education; and it is not too much to say, that whatever has been practically accomplished by the State in that enterprise, is to be traced, first or last, to the existence of that office, and to the labors of those who, during the last fifteen years, have filled it. Still, during almost the entire period which preceded the adoption of the new constitution,

attacks were made upon the existence of the office itself, or upon its dignity and efficiency; and almost every recent session of the legislature witnessed attempts to degrade the office, or to abolish it, on the part of those who selected this as at once the safest and most effectual method of waging war upon the common school system itself. By the 2d section of the XIth article of the constitution of 1850, this office is made constitutional and permanent, and is to be filled by election, by the qualified voters of the commonwealth, every fourth year. Henceforward, he who shall fill it, will do so as the representative of the entire people of Kentucky—called by the voice of a great commonwealth to discharge a great constitutional trust, touching the very greatest interests of the people. The whole posture of things is, therefore, very essentially changed. And I, who during four years of great toil and opposition, experienced so many of the inconveniences, and endured, for my work's sake, so many of the embarrassments of the former condition of things, may well consider my election by the people, under circumstances of so much opposition and obloquy, to an office which, so far from seeking I did not even desire; a popular approval of the great principles on which I had administered the office, and whose successful application against incessant opposition, has made the system what it is.

IMPROVIDENT LEGISLATION. It is impossible that any human enterprise of great extent and considerable complication can be permanently sustained or carried on at all, while it is subject to incessant changes, on the part of persons who take no part in the practical execution of the enterprise, and who neglect to inform themselves minutely of the actual position of the system they thus persist in changing, as well as of all the probable effects of the changes they introduce. The school system of Kentucky has very great tenacity of life, as its past history abundantly attests; but even it is capable of being finally destroyed by experiments upon its life, which seem to have no end as to their multitude, and no object except to gratify some immature caprice. In every report I have made to the legislature, one prominent part of my duty has been, either to resist projects for change which involve fundamental revolutions, or to implore the legislature to repeal ruinous enactments which had been passed so silently, that the first knowledge I had of their conception was to find them printed in the statute books.

TIME REQUISITE TO PERFECT SYSTEM. The training of a whole people in any large system of thought, and the preparation of an entire country for any steadfast, enlightened, and continuous movement, in any direction whatever, are works of the very greatest difficulty to which human beings can devote themselves. They are works which, under the most favorable auspices, fail more frequently than they succeed. Of all such works, the successful establishment and the permanent support of a system of public education, is so eminently one of the very most difficult, that it may be confidently asserted, the world has never seen, and does not now possess, a solitary system, which can be pronounced even complete in its own circumstances, much less worthy of being considered perfect, as a model. Time, and patience, and peace—great practical experience, great theoretical skill, high administrative talents; all these are indispensable—and how much more is needful—to give to a great commonwealth a great system of education, even after the heart of the people has been won, and their intelligence aroused, and their liberality completely established. Now, has either time, or patience, or peace, been allowed in Kentucky, for any system whatever to be even understood, much less established firmly? Contentions, and changes, and general recklessness of results, have clouded the history, and harrassed the entire career of this great cause in this state.

SYSTEM MUST BE ADAPTED TO CIRCUMSTANCES. The education of every human being, in the highest and best sense of that phrase, has in it that which the imitation of others can never supply, and the disregard of one's own personal development is the surest way to dwarf. And so every community must work out its own educational system, as really as it must work out its own political constitution, or its own social organization; and the two greatest errors of principle it can commit in such an attempt is, in the first place, to neglect and despise the fruits of its own experience; and, in the second place, to accept with ignorant credulity, and adopt with silly veneration, the pretended perfectibility which other communities have attained. Kentucky is, in many respects, one of the most homogeneous communities in the world, and, withal, one of the most peculiar. She is, therefore, one of the last states on earth that can safely disregard the indications of her own past development, or receive, with implicit faith, the experience and attainments even of New England, as better for her than her own, or bow to the theories even of New York, as more applicable to her wants than her own.

PUBLIC EDUCATION NOT LIMITED TO DISTRICT SCHOOLS. Does it satisfy the popular heart to say, that all the state ever proposed to do, was to limit herself strictly to the lowest possible provision—for the lowest possible grade of schools? This is very far from being my idea of the subject; very far from being the idea which the law exhibits, and the state cherishes. These district schools are the first, the fundamental, the universal necessity. But every one you make augments the necessity of a kind of school higher and better than itself; and every child you train in them, will unite its clamorous demand, with that of all who know that other knowledge besides knowing how to read and write, is useful to all men, and indispensable to freemen, that the state shall not now set down this ignominious mark, and vow that she will not pass over it. Such enactments are hostile to the spirit of the age in which we live, and utterly out of sympathy with the sentiments, the wants and the aspirations of the people of this state. Instead of pledging herself that she will do nothing—except teach her children the merest elements of knowledge—it would far better become the state to pledge herself that nothing shall ever be wanting on her part, to keep pace with the just demands and expectations of her children. And rather than one of the lowliest of those children should lack the means to fit it to serve the state well—a thousand statutes like this should be torn in pieces—and ten thousand such pledges to foster general ignorance, as it would extort from the legislature—should be scattered to the winds. And that will be the response of the people of the state, when they understand these things aright. While this report of these commissioners was passing through the press at Frankfort, there sat in the same town, a convention of the friends of education to which I have before alluded, and which, without knowing anything about what these commissioners had done, passed over this same great aspect of the subject. How did it strike that body of distinguished citizens, scholars, and teachers? Thus: they passed one vote, that every system of education, necessarily must embrace schools of a higher order than district schools; they passed another vote, that every such system must embrace some adequate method of training the teachers themselves; and they passed a third vote, that let a good system cost what it might, it should be carried into effect.

SUPERIOR EDUCATION. Kentucky has no interest that it more deeply concerns her to cherish, than the interest of superior education. The poorest of her citizens have a stake even more immense than others, in those ample provisions for the extensive attainment of knowledge, which, if the state make them not, never will be made for them. And those who pay the taxes have, besides all other pleas, this unanswerable one, that as the property of the state is required to sustain the educational system of the state, that system should, in naked justice, be made complete in itself, and worthy of the sacrifices required to support it. Every enlightened man should set his face against every attempt to foster vulgar prejudice against superior cultivation, and the means of obtaining it; for it is this, at last, which decides the race, in the career both of men and states. When only one man in ten thousand could write his name, that community was, no doubt, greatly distinguished, in which every man had acquired this art. But the human race has made great progress. And now shall we pause, and say we are greatly distinguished, and are satisfied with what we have done, as soon as we provide for that, which many other communities have achieved, and made the basis of higher progress, before we commenced our career? Or shall we strive with the greater earnestness to overtake the very foremost of our competitors in the race of glory, and side by side with the best and brightest of them all, press toward the mark for the immortal prize.

The people of Kentucky will have superior education; and if the state prefers that its youth should be trained only in other states, or in sectarian institutions, in this state, it has only to repudiate its university to secure that result. The people of the state will prefer good teachers to indifferent ones; and if the state prefers that these good teachers should be strangers and foreigners, rather than her own sons, she has only to refuse all provision for training them at home, and this result is secured.

COMMON SCHOOLS NOT NECESSARILY FREE SCHOOLS. It may be well doubted whether, taking the question in its simplest and widest sense, a system of common schools in which the state only *aids* the community, is not really better, for every condition of human society, than one in which the state bears the whole expense, and does the whole work. For my own part, I decidedly believe that the former, and not the latter, is the true plan upon which every possible form of human benevolence can be the most successfully exercised, both as it respects the real advantage of those who are aided, and as it respects the proper duty of those who extend the aid. God helps us to help ourselves; and he directs us to help each other in the same manner. Any other method does not devolop so much as it deteriorates human nature; and this is the result of all human experience, as well as of all sound

reason, applied to the subject in its largest bearing. But if the question be limited to the more restricted form, namely, whether in a scheme of common schools for Kentucky, a system universally free, or a system partly supported by the state any partly by the people, is the better of the two; then, again, I would entirely dissent from the conclusions of the re-draft, and assert, that the absolutely free system forced into universal adoption, is neither possible in point of fact, nor consistent with the past experience, nor present wants, nor actual condition and character of our people.

The system which now penetrates every part of the state is free, or is not free, precisely as each school district, and each city and town shall decide for itself. In the overwhelming majority of cases, it is not, and never was free. In some few cases, of large and populous districts, and very small schools, cases in which the aid allowed by the state was sufficient to hire a teacher for such a school, for the term of three months, no additional tuition may have been demanded from any pupil. But these cases bear a very low proportion to the whole system. The spirit of that system is this: The state will "*encourage and aid the citizens to organize and maintain common schools.*" (*Act of* 1845.) Such are the express words of the general school law. The conditions of this aid and encouragement are few and simple. 1. That a school shall be taught three months. 2. That it shall be a *common school*. It shall not be a *select* school, nor a *private* school; but it shall be a *public*, and *common school*. A *common school* in opposition to its being a *select school*, and not in opposition to its being a *pay school*, which latter it might be, or might not be, as the people, encouraged and aided by the state, might determine for themselves.

The present Superintendent, Rev. Dr. Mathews, remarks:

CONDITION OF THE SCHOOLS AND THE SYSTEM IN 1855. The number of children returned to the Auditor's office between the school ages of six and eighteen is 229,403, making an excess over the number reported by the commissioners of common schools of 14,001. The highest number of children during the past year, reported as actually attending school is 113,763; the lowest number at any one time was 37,229; and the average number 73,035. The amount of money drawn from the school fund and distributed among the schools was $150,501.40. There are 3,374 districts in the state. *Each district is a school, in which* the children contained in it receive an elementary education. Your minds should receive the impression distinctly that there are *actually* 3,374 *common schools taught in the state*, with about 5,000 teachers, occupied in training and moulding the minds of 113,763 of the youth of our families! And that more than one dollar for every voter in the commonwealth for governor in the last August election, has been appropriated to the children at school! Such details reveal to you the practical working of the system—realizing the beautiful sentiment of the eloquent and immortal Burke—"That taxes for education are like vapors, which rise only to descend again to beautify and to fertilize the earth."

POPULAR VOTE ON TAXATION FOR SCHOOLS. The last legislature passed a law, calling upon the tax-payers of the state to vote an additional tax of three cents on each $100 of taxable property, in aid of common schools. The vote was taken last August. The result, as seen by the returns to the office of the Secretary of State, gives only five counties, out of one hundred and three voting adversely! More than three to one of the votes cast endorse the increased taxation. The people of Kentucky have, the second time, by an emphatic voice, proclaimed their devotion to popular education, and hearty readiness to yield their wealth to perfect the system so auspiciously and successfully begun.

The Report of the Superintendent for 1854, on the authority of the Auditor of Public Accounts represents the taxable property of the State for that year to be $405,830,168.00. This amount is strictly *property* (not interest from capital, salaries, wages, &c.) Of the 80,218 parents who are returned as having an aggregate of 227,123 children between the ages of 6 and 18 years, 11,578 parents having 28,800 children have no property entered for taxation; 8,530 parents having 23,923 children are worth less than $100 of taxable property; 13,391 parents having 37,859 children are worth $100 to $400 of taxable property; 6,824 parents having 19,687 children are worth $400 to $600 taxable property, and only 39,895 having 116,846 children are worth more than $600 of taxable property. There are only 30,000 parents in a white population of 800,000 who own over $1,000 taxable property—or who pay a school tax to the amount of $3.00. It is not difficult to carry a school tax, where a large majority of the voters can be made to see that

they will get twice as much back for the education of their children as they are required to pay.

WANT OF A NORMAL SCHOOL. I beg leave to urge upon the attention of this legislature the desirableness of a Normal School—"an institution for training up persons to teach common schools." The importance of such a school needs not the example of European governments, or of other states of our Union, to enhance its claims before your minds. It forms the basis of any complete system of State education, and has ever been viewed as the greatest want of our own.

The trustees of Transylvania University, located in the beautiful and refined city of Lexington, have unanimously offered to the Legislature the use of their large and commodious college building and dormitory, and the services of an able and accomplished faculty, for the purposes of a normal school. *You are not called upon to make an appropriation by increased taxation, but to give your sanction to the direction of a small portion of the income of the school fund already provided for, for the support of such an institution.* In their memorial the trustees estimate the value of the property of the university at more than one hundred thousand dollars. And can the state decline such a noble and generous offer, when the sum of ten or twelve thousand dollars only will be required to commence the experiment at once?

Experience demands such an experiment in our state. More than eighteen years ago our common school system was commenced, and yet the supply of teachers has not been maintained as it was alleged by many from those schools. On the contrary, the number of foreign teachers increases instead of diminishing; statistics would, were it necessary, prove this assertion. You must have a fountain of supply—a radiating focus—a great heart in this system, to pour forth a pure circulation, whilst from the common schools there would be flowing to this center a current to be improved and enriched. The Normal School would exert such an influence. The very fact of the legislature of the state creating such an institution would make the profession a dignified and honorable one, and hundreds of young men and young ladies would devote their lives to such pursuits. In the language of the gifted Hon. Edward Everett: "If the teacher was to fashion your child's personal proportions, or to remodel his features, with what jealousy would you inquire after his qualifications for that task? Is it of less importance how he fashions and moulds the features of the mind? The husbandman can tell us if it is a matter of little or no consequence, whether you employ a skillful or an unskillful person to raise a crop of corn, the growth of a few months, under a simple process of culture. Every man's reflection and experience will satisfy him that the teacher's duty is important, complicated and arduous. It is not a mere piece of job-work to which any one may turn his hand, but a professional calling which requires knowledge, judgment and experience."

Our peculiar exigencies demand such an effort on the part of this state; ours is a border slave state, and the pioneer in a system of common schools among slave states. We not only need competent and thorough teachers, but they should be identified with our condition and circumstances. How can we expect men taught from infancy to believe that slavery is a sin, to refrain from insinuating, if not boldly teaching this belief? Why, they impart their peculiar accent and pronunciation to our children; will they conceal their sentiments from the unsolicitous and unsuspecting mind? If our best instructors are to be *borrowed from free states* as contradistinguished from slave states, the state of Kentucky may as well prepare for a premature old age at once, and proclaim that her system of common schools, conducted by foreigners, is digging her grave.

The Legislature made provision for the education of 150 teachers, annually, free of charge, at the State University. The details of the plan and its practical working will be presented in an account which we shall soon give of all the Normal Schools and other Agencies for the Professional Training and Improvement of Teachers, in the United States.

The Report is accompanied by a large mass of statistics giving the condition of the schools in detail, which can not be transferred to our pages, but which show, to those familiar with such returns, and who know what always lies back of such figures, that there is a great work yet to be done in Kentucky, to perfect the common schools.

IOWA AND LOUISIANA.

We are not in possession of a recent official document respecting the Common Schools of Iowa and Louisiana.

MAINE.

Annual Report of the Superintendent of Common Schools [Mark H. Dunnell,] for 1855. 162 pages.

This document contains, besides the Report of the Superintendent, tables exhibiting in statistical detail the condition of the schools in each town arranged by counties, plans of school-houses, list of school apparatus, and extracts from the Reports of Superintending School Committees.

PROGRESS OF THE SCHOOLS.—Our public schools have received a generous support at the hands of the people. Fifty-four thousand dollars, over the amount required by law, ($281,148,) have been raised by tax for their support. The State has distributed, for the same purpose, sixteen thousand dollars more than on any preceding year. The public mind has given other promises of much future good to the schools of our State. Many new and elegant school-houses have taken the place of the old and dilapidated; a large number of villages have discovered the superior efficiency and economy of a system of union and graded schools; many of the improvements in school architecture and school furniture have received a ready adoption, and in every part of the State, loud and urgent demands are made for better teachers. The services of such teachers have been more fully appreciated and generously rewarded than in former years. The people have hailed with gladness the agencies which have been used to increase the qualifications of those who are to mould and give character to the minds and future life of their children.

STATISTICS FOR 1854–55.—Number of towns in the State,	384
Number of towns that have made returns,	379
Number of organized plantations,	99
Number that have made returns,	62
Number of school districts in the State,	3,965
Number of parts of districts,	277
Number of children in the State between the ages of 4 and 21 years,	238,248
Number of scholars in the summer schools,	123,641
Average number in the summer schools,	91,894
Number of scholars in the winter schools,	142,220
Average number in the winter schools,	100,560
Mean average in summer and winter schools,	96,227
Number of male teachers,	2,559
Number of female teachers,	4,137
Average wages of male teachers per month, exclusive of board,	$20.57
Average wages of female teachers per week, exclusive of board,	$1.90
Average length of all the schools for the year in weeks and tenths of a week,	18.9
Amount of money raised by taxes for the support of schools, in 1854,	$333,019.76
Amount required by law,	$281,148.00
Excess over the amount required by law,	$51,871.76
Amount of money received from the State,	$54,398.96
Amount received from local funds,	$16,990.57
Amount expended for private schools,	$23,843.00
Number of school-houses built the past year,	128
Cost of the same,	$62,808.00
Aggregate amount expended for school purposes the past year,	$491,060.29
Number of good school-houses in the State,	1,752
Number of poor school-houses,	2,088
Estimated value of all the school-houses in the State,	$870,005.00
Average amount of school money raised per scholar,	$1.36
Amount received from the State per scholar,	$0.30
Number of towns that have raised, as required in 1854, 50 cents per inhabitant,	292
Number of towns that have raised less than 50 cents per inhabitant,	75
Percentage of the valuation of 1850 appropriated to common schools, in mills and tenths,	3.4
Number of towns that have raised $3 or more per scholar,	3
Number of towns that have raised $2 and less than $3,	23
Number that have raised $1 and less than $2,	334
Number that have raised less than $1,	22

SCHOOL ATTENDANCE.—The attendance upon the privileges of our public schools is far too small. It is believed, moreover, that this want of attendance, in a great measure, exists among that class of scholars where it should the least prevail. The number in our schools, between the ages of sixteen and twenty-one, is

much less than in former years. This is a great evil and wholly subversive of the legitimate objects of our system of free schools.

DIMINUTION IN NUMBER OF TEACHERS.—The low price of wages at which they are compelled to labor is undoubtedly the principal cause. Many more inviting fields of labor present themselves, than that of teaching. The mechanic or the clerk often receives double the salary paid to the teacher. An increase in the compensation of the teacher, as well as of every other laborer, is made necessary from the greatly increased expense of living.

WANT OF WELL-QUALIFIED TEACHERS.—The want of well-qualified teachers for our public schools, is undoubtedly one of the greatest obstacles to their success. It is, however, a hopeful sign that the people are becoming more and more convinced, that however much they may do for their schools, in providing convenient and attractive school-houses, and in raising money for their support, yet without competent and skillful teachers, these schools cannot perform their true mission. This conviction manifests itself in loud demands for this class of instructors, and in an increasing willingness to remunerate them according to this more reasonable estimate, in which their services are beginning to be regarded.

SCHOOL MONEY.—Prior to March 30, 1853, each city and town was required by law to raise by tax for the support of schools, at least forty cents for every inhabitant, taking the last census as the basis. At the above date another law was passed, requiring fifty cents for every inhabitant. The school money for the year ending April 1st, 1855, was raised in compliance with this last provision. The whole amount raised was $333,019.76, while that required by law was $261,148.00, showing an excess of $51,871.76.

The amount received from the State the past year was $54,398.96; from local funds, $16,990.57; and that expended for private schools, $23,843.00; making in the aggregate $428,252.29, as the sum expended for school purposes. The amount raised by law gives to each scholar on the average, $1.36; that received from the State, $0.30; and from local funds, with the sum expended in the support of private schools, $0.12; making an average sum to each scholar in the State of $1.78.

A law was passed April 20, 1854, which was to take effect January 1st, 1855, requiring that sixty cents for every inhabitant shall hereafter be raised for the support of schools.

SCHOOL-HOUSES.—Very decided improvements have been made in the location and internal arrangements of many of the school-houses, which have been built during the past few years.

The larger portion of our school-houses are too small, badly seated, badly located, without the means of ventilation, destitute of playground and outbuildings.

The invaluable work on School Architecture, by the Hon. Henry Barnard, LL. D., should be made the property of every district, or at least of every town in the State. It is a fund of the most reliable knowledge upon every branch of this important subject. It has been furnished to every town in the State of New York, and by legislative appropriations, to the several towns in the States of Massachusetts, Connecticut, Rhode Island, Vermont and New Hampshire, and the province of Upper Canada; and to every district and library in the State of Ohio, and to every town library in the State of Indiana. An edition of five thousand copies of an abridgement of the work has been circulated among the promoters of schools in England, Scotland, and Ireland.

SMALL DISTRICTS.—This is one of the greatest evils attending the practical operation of our school system, and one which should command the serious reflection of the people.

GRADED SCHOOLS.—A graded school is a classified school, consisting of two, three or four departments, to each of which the pupils are distributed, according to their ages and attainments, and placed under teachers adapted to each grade. These departments are generally denominated the Primary, the Intermediate, the Grammar, and the High School. The larger cities have very generally adopted the four departments. In some of the smaller cities, and larger villages, the system embraces but three, the Intermediate being omitted; and in the smaller villages, and populous rural districts, but two, the Primary and Grammar. In the cities, two or more classes of school-houses are provided; while in the villages, and populous districts, which have adopted the graded system, one commodious edifice is usually erected for the accommodation of all the departments. Very many villages and neighborhoods have not yet attended to a proper gradation of their schools, although the number of their scholars renders it not only practicable, but highly necessary to their success.

PUBLIC HIGH SCHOOL.—The highest department in a system of graded schools is usually denominated the High School. Wherever this school has been established, whether in the city as a part of a complete system, or in towns, sustained by the union of all, or even two or three contiguous districts, it has never failed, when properly constituted and conducted, to receive universal favor and approbation. It greatly increases the advantages to be derived from our common schools. It furnishes to all, to the poor as well as the rich, the means of securing a complete English education. The High School exerts a most salutary influence upon the lower schools; stimulates the efforts of teachers; increases the exertions of scholars by the hope of promotion; economizes labor by enabling the teacher to give thorough and systematic instruction to a much larger number of pupils; furnishes in due time, well-qualified teachers for all the schools of lower grade; affords an opportunity for thousands to obtain an education of a higher order, who without such aid, would be doomed to pass through life with the mere rudiments; evokes genius, develops talent, and draws out those intellectual and moral resources, which the spirit of the age, and the highest interests of the State demand; it supercedes the necessity of private schools, and thus relieves the community of sustaining a two-fold system of education.

There are no better schools in the Commonwealth than some of our public high schools, and to these families of the highest character now prefer to send their children. This makes our schools common in the best sense of the word, common to all classes, nurseries for a truly republican feeling, public sanctuaries, where the children of the Commonwealth fraternally meet, and where the spirit of caste and of party can find no admittance.

SCHOOL SUPERVISION.—Men should be elected to this office who are thoroughly qualified for its duties, and who, at the same time, are not afraid to work, but are willing to work hard; and men, who are able to determine whether a teacher is really qualified for his work. In the election of no municipal officers should voters so seek for absolute fitness, as in the election of those who are to superintend so important an interest as that of their common schools.

PRINTED REPORTS.—When the committee have submitted their report to the inhabitants of the town, it should be printed and a copy sent to every family, to be read by parents, teachers and scholars. Unless printed, however faithfully this document may have been prepared, and however valuable in statistics or suggestions, it will fail to produce much positive good; for it is usually read near the close of the town meeting, when most of the voters have gone to their homes, or their minds are occupied with some matters of business. Committees would be encouraged in their responsible and often arduous labors; and would seek a greater acquaintance with the general duties of their office. Teachers would seek to deserve the approbation of the Committee and the community, were their character as teachers to be set forth on the printed page, and read by every family in town. It would encourage *good* teachers, and drive *poor* ones from the field. It would tend to create a healthy emulation among the parents and scholars of the different districts, as well as increase the amount of reading matter on the subject of schools.

TEACHERS' CONVENTIONS.—A Teachers' Convention or Institute, is an assemblage of teachers for a period extending from one to four weeks, for the purpose of reviewing the studies they are to teach, and to witness, and to some extent practice, the best methods of arranging and conducting the classes of a school, as well as of obtaining the material ideas of experienced teachers on topics of educational improvement. The instruction is designed to be of such a character as shall furnish a model for common school exercises, although the former will naturally partake more of the oral method than the latter. Owing to the shortness of the time during which they are usually held, they only aim at giving some practical skill, some knowledge of the art of teaching. The evening sessions are generally occupied by lecturers, who discuss some of the more important topics embraced within the range of common school interests.

The Conventions in twelve counties, was held five days and evenings, each; in one, Aroostook, but three, owing to its remoteness from the places of holding in the adjoining counties; and in two, four days each, in consequence of the lateness of the season. The hospitality displayed in the towns where the Conventions were held, was exceedingly gratifying. Ample accommodations were provided for all the teachers, and every arrangement which could conduce to the pleasure and comfort of all.

The whole number of teachers in attendance at all of the Conventions was sixteen hundred and ninety-one. Twenty-three were present at the second Convention, so that the whole number of different members was sixteen hundred and sixty-eight. This number makes an average at each Convention of one hundred and thirteen.

To support this institution in Massachusetts, $4,500 are annually expended, and in New Hampshire, $5,200. The $2,000 appropriated for its support in this State will meet all the expenses only by the use of the most rigid economy. These expenses consist of the salaries of instructors, their board and traveling expenses, the sums paid to lecturers, for the use of halls, circulars, advertising, postage, &c. We have about 241,000 scholars, so that the $2,000 expended to increase the qualifications of their teachers, will be but twelve mills to a scholar, and when compared to the whole cost of all our public schools, will be as four mills to one dollar.

LECTURES ON EDUCATION.—Sixty-nine public lectures were delivered at the evening sessions of these Conventions, and I am happy to report that they were very generally of a practical character, well calculated to instruct and improve the members of the Conventions in their duties as teachers; to awaken within them as students a livelier enthusiasm; and to arouse in the minds of citizens a deeper interest in the cause of common schools. Large and attentive audiences, and in some instances, filling the house to overflowing, characterized these evening sessions. The interest in each county was an increasing one, and not unfrequently towards the close of the week, brought in large numbers from the adjoining towns.

NORMAL SCHOOLS.—The more prominent agency for training teachers, is the Normal School. It has been incorporated into the school systems of all the leading powers of Europe, and a number of the States of our own country. The Normal School aims to give the true science of teaching. Its history is a triumphant vindication of its usefulness.

In my judgment, the time has come, and the condition of our schools imperiously demand, that measures should be adopted for the establishment of a State Normal School.

Such an institution would give a completeness to our school system; it would become a rallying point for the friends of popular education. It would open a fountain at which many a young man and woman could drink in the true spirit of the teacher's vocation, and from which they would go forth to the various sections of the State, becoming pioneers in the work of infusing a new life and vigor into the common schools.

DUTY OF UNIVERSAL EDUCATION.—Knowledge is the birthright of all, and our common school system acknowledges this truth, for it brings the same means of intellectual culture to the children of the poor as well as the rich. Here all can come, and each receive the intellectual armor fitting him for the conflicts of life. It is a duty which we owe our age, our State, and country, to seek a thorough education of all classes, for only as they are thus educated, can we reasonably expect that they will discover the true laws of individual and social progress, and the necessities of a government of law. That part of our civil constitution which provides for the maintenance of our common schools, is a perpetual monument to the intelligence of its framers. Let, then, our common schools be cherished for their peculiar fitness for the part assigned them in our social system. Let districts study their true interest in regard to territorial limits, and the classification of their scholars; let the school-house be made pleasant and attractive; let the teachers employed, be intelligent, conscientious and patriotic; let towns, in their corporate capacity, make provision for the education of every child within their limits, and let them elect men who will faithfully and energetically superintend their school interests. Let parents, too, unite in this work. Let them visit the school; extend to the teacher an approving word; seek for information upon each and every subject connected with the proper management of schools, and keep constantly in view the primary objects of a school education. Let the State not forget to cherish and develop the elements which are soon to shape her destinies; let her bring to this work all the agencies which experience has pronounced effective, and let her secure their faithful execution. Through the agencies already in use, let information be scattered among the people; let the people be addressed; and let the teachers be brought together in convention, and there instructed into the responsible nature of their profession. Let experience and sound wisdom decide in the selection of other agencies. Let the Press lend its powerful voice in the defense of all proper measures for the improvement and efficient working of our school system.

MARYLAND.

There is no general school system in Maryland. The report of the Committee of the Public Schools of Baltimore, will be noticed in the review which we propose to give of the School Document of Cities.

MASSACHUSETTS.

Nineteenth Annual Report of the Board of Education, together with the Nineteenth Annual Report of the Secretary of the Board. Boston: 1856. 328 pages.

This document of 328 pages contains the Annual Report of the Board and their Secretary, (Rev. Barnas Sears, D. D., now President of Brown University,) the Reports of the Visitors of the four State Normal Schools, Reports of the Agents employed to assist the Secretary, by visiting schools in different towns, and addressing teachers and parents, Extracts from the Annual Reports of the Town School Committees and Abstract (town, county and state-wise,) of the Annual Returns of the condition of the Schools, with a valuable Index of five pages, as valuable as any five pages in the document.

The Board remark:

GENERAL CONDITION OF THE PUBLIC SCHOOLS IN 1855.—The results of the past year seem calculated, if possible, to increase the confidence of the State in its system of public instruction. Not that our system is perfect; but there is among the people a universal interest, which has been manifested in increased appropriations for the support of schools, in the erection of improved school-houses, and in the demand for well qualified teachers. This progress, so satisfactory to the friends of education, and so essential to a system of instruction eminently popular, is evidence that the judgment of the people harmonizes with the policy which the legislature has seen fit to pursue.

The appropriations for the school year 1853–4, including only the wages of teachers, board and fuel, were $1,013,472.26; and for the year 1854–5, the appropriations for the same purposes were $1,137,407.76; being an increase of $123,935.50, equal to twelve per cent.

This is a larger advance than has ever before taken place in the Commonwealth, whether we regard the aggregate or the ratio. These appropriations were self-imposed by the people, and it is not known that they have in any section been the subject of general complaint. But, on the other hand, the majority of the people seem to consider that the support of the common schools is an indispensable element of public prosperity, and that their influence affects favorably the material, as well as moral and intellectual interests of the State.

STATISTICS OF NORMAL SCHOOLS.—There were 332 pupils in the four State Normal Schools, viz:

	Males.	Females.	Total.
Bridgewater,	24	44	68
Framingham,		85	85
Salem,		121	121
Westfield,	18	90	108

STATE SCHOLARSHIPS FOR TEACHERS OF HIGH SCHOOLS.—Two classes of twelve students each, have entered the several colleges of the Commonwealth upon the foundation established by the Act of 1853. Sufficient time has not elapsed to justify an opinion of the merits of this measure, based upon experience; yet every circumstance known to the Board of Education leads to the conclusion that the expectations of the State will be fully realized. The specific object of the Act is to furnish competent teachers for the high schools; and there has never been a time when the demand for such teachers was greater. There are probably one hundred high schools in Massachusetts, and the number of towns required by law to maintain such schools is annually increasing. These schools ought all to be supplied with well educated, thorough teachers. In addition to this manifest want of our own, there is a constant, and in some cases, pressing demand, for teachers of different grades to go into other States. This demand has in a few instances borne hard upon our own schools. It is not, of course, the primary object of our system to furnish teachers for other States, nor does it seem to be wise to attempt any restriction. It is no trifling compliment to our system of public instruction, that it furnishes teachers whose services are desired by the citizens and governments of other States.

RESIGNATION OF DR SEARS.—The Board feel that by the resignation of Dr. Sears, the cause of popular education in Massachusetts lost a zealous, faithful, and highly cultivated supporter and friend. His administration was eminently calculated to conciliate public sentiment in favor of education, to consolidate the system, and to bring it into harmony with the wants of the people and the policy of the legislature. During Dr. Sears' administration great progress has been made.

The appropriations have been increased, school-houses and apparatus have been improved, and the professional character of teachers has been elevated and their influence extended. We are sensible that these changes are in a high degree owing to the labors and wise counsels of the late Secretary.

The Secretary of the Board closes his connection of seven years with the public schools of Massachusetts, with a masterly survey of the dangers to which the system is exposed, and a consideration of the limitation of its usefulness.

Unreasonable Hopes of Speedy Results.—It is often supposed that great results can be produced in a single term of twelve or fifteen weeks. Both teacher and committee aim at this rapid mode of manufacture. True education is that which aids the slow and healthy growth of the mind—the incorporation into it of principles and the formation of tastes and habits, the full value of which will appear only after mature years have developed their tendencies. The highest and best parts of education are incapable of exhibition. The show made at the close of a term is well enough to amuse children and their fond parents, but is often like that of newly dressed pleasure-grounds, adorned with trees and shrubs fresh from the nursery, having a show of vitality in the foliage, though as yet drawing no sap from the root. Such frostwork of the school-room is soon dissolved and generally passes away with the occasion. All attempts at such premature results of education are nearly useless, and yet our system of employing teachers by the term renders it almost necessary for a teacher who is ambitious of distinction, to lay his plans for that kind of superficial culture and mechanical drill which can be produced in a few weeks, and shown off as evidence of marvellous skill. An experienced educator or observer can, indeed, inspect the processes of education, and judge of their fitness, as an agriculturist can of the preparation of the soil, and of the quality of the seed. But most persons must wait for time to bring forth the fruits of education, before they can form a true judgment of its character. All expectations of triumphant success in the schools, founded upon such views of speedy results as those above alluded to, are destined to fail of their fulfilment. And when the people have been misled by these vain hopes, and find themselves in the end bitterly disappointed, the public schools will be in danger of languishing, bleeding from wounds inflicted by their own friends.

Limitations of the Teacher's Power.—While that [the teacher's] power is great, when properly sustained by collateral influences, it has yet many limitations, partly from the nature of the human mind, and partly from peculiar circumstances. One of these limitations is to be found in the individuality of the pupil's mind. When it is said that the teacher has a power over the young, like that of the sculptor over the block of marble, some abatement is to be made for the rhetorical character of the statement. The marble is entirely passive. It has no embryo nature to develop, no hidden tendencies to some unknown result, no secret processes working great changes, expected by no one, and bursting, at length, suddenly upon the view by some new exhibition of talent, or some new form of character. To such an extent have these phenomena been observed in original minds, that a conclusion has often been hastily drawn disparaging to all education. All real talent, it is sometimes said, is self-developed and self-regulated. The truth contained in this statement is, that some minds have such strong intellectual instincts, and such natural energy, that they are less dependent on a teacher's aid than others; that in struggling with difficulties and overcoming obstacles, they acquire an independence and power which more than make up for a want of early elementary training. But even upon such intellects the influence of a genial teacher must be favorable, while to those of the common class it is indispensable. Still, it must not be forgotten that there are under-currents in almost every pupil's mind, which are not easily detected by the teacher or by the parent, which sometimes conduct to issues wholly unexpected. When remarkable powers and capacities are working thus in secret, the school training may come so little in contact with them as to do but little good or harm; or it may be that an earnest teacher's endeavors have been nothing but unsuccessful contests against natural proclivities which could not be resisted, but might, with more skill, have been guided and modified. In other pupils there is a weakness or dullness of intellect which effectually limits the teacher's power. His labor is not lost, it is true; but the public expectations are not in these instances realized. No one ought to be disappointed or discouraged at such results. They ought to be foreseen, and none but reasonable expectations ought to be cherished.

Another limitation of the teacher's power lies in himself. Education, when pursued as a definite object, is the action of a well-formed and well-furnished mind in forming and furnishing anothers mind, while the latter is in a plastic state. Some of the difficulties connected with the mind that is to be educated have been

considered. There are others, not less real, growing out of the educator's mind. I do not refer here to the necessity of knowing and comprehending the subjects to be taught, without which no one ought to find employment as a teacher; nor to the necessity of a thorough apprenticeship in the art of teaching, respecting which there remains, at the present time, little doubt; but to that study and control of one's self which must be even more searching and rigid than of the pupil. The mind that exerts a formative influence upon so many others should itself be a model mind. This, though simple in theory, is not quite easy in practice. The teacher's mind cannot be constructed anew, according to prescription. And yet there are few teachers whose minds do not need remodelling, or, at least, to be changed in many particulars, in order to give them even a relative perfection. What shall the teacher do in these circumstances? Shall he passively resign himself to his lot, and teach and govern the young in the manner which is to him most natural and easy? or shall he have a perfect standard, a beau ideal, in his mind, and then by an analytical process, subject himself to the most searching examination and record the results for his own careful inspection? Suppose there are idiosyncrasies which can never be remedied. Suppose some of the organs in the mental constitution are feeble and almost imbecile. Suppose there are peculiar tastes of decided predominance, and yet of questionable character, and habits that are strong and obstinate, and yet objectionable. There may be a want of clear and well-settled principles in morals, so as to furnish no basis for a system of sound discipline: or there may be remains of early vicious habits, which leave their taint long after the correction has been applied. How are such things to be managed? If a teacher could be relied on for making an examination of himself with the thoroughness of a philosopher, and for forming an idea of himself with the impartiality of an indifferent spectator, one class of difficulties would be disposed of. If, moreover, he had the power to supply what is wanting and to remove what is evil, that would enable him to accomplish something of great moment. If he would conscientiously give his earnest attention to the subject, and do what he could towards remedying defects, or by a careful and cautious procedure so manage himself, his instruction, and his discipline, that the injury or loss sustained by the school should be reduced to its minimum, a very important end would be secured. But how many of the teachers actually selected and employed, possess these traits of character; and how many will there be after all the efforts made by the public to bring about such a result? If, then, we found our expectations on ideal views of teachers, of teachers as they should be, and not as they are, it is quite clear that the hour of our disappointment, though it may be delayed, will certainly come.

EDUCATION BEYOND THE SCHOOL-ROOM.—There are circumstances in the history of a people which have their educating influence, and yet cannot be changed. The pioneer in a new settlement is not bound to perform, in respect to education, more than the state of society will admit. If the population of the country is sparse, and there is a general want of refinement, and the means of high intellectual culture do not exist, he cannot be held answerable for deficiencies which he cannot prevent. In the rapid growth of great cities, and the general increase of wealth and luxury, difficulties of an opposite character are experienced. Here there are positive tendencies to a corruption of the public manners which no merely human power can remove. In the ordinary course of events, wealth and luxury will, as all history teaches, exert an influence over the young, taking away the motives to industry, economy, and other home-bred virtues, stimulating the more dangerous appetites and passions, educating them, in short, to anything but to a useful and honorable life. This is a miasmatic influence, which no vigilance of the wealthy parent can, with certainty, keep from injuring his offspring.

A people may, as is now the case with us, be subject to influence from the presence of a foreign race of men. The domestics in our houses form a part of the circle in which our children are reared. Falsehood, deception, and petty frauds, practised daily in the nursery and about our homes, by persons in our employ, will leave their effect on the tender susceptibilities of childhood. The men who are employed about our houses, gardens, and farms, or in our workshops, uttering words of profanity and of vulgarity, are acting most effectually in destroying the virtuous sensibilities of our sons, and in sowing the seeds of vice. The influx of a more intelligent class of foreigners, educated in the corrupt monarchies of the old world, brings with it other perilous influences, besieging the very citadel of our social virtues. The refined epicurism and infidelity, imported largely at this time from countries where the popular religion is a state trick or a farce, is in danger of being diffused in social circles by men of some literary and scientific pretension. The Sabbath is to many of them a mere day of amusement. The church and its holy services are spoken of with levity and disrespect. The manners, the sentiments, and the virtues of our worthy ancestors are ridiculed, and even the most

sacred institutions of society, the marriage and the family relation, are held in little esteem. These things the parent may see and lament, but can he prevent them, or be sure that his children are entirely shielded from their influence?

Again, the crowds of young people rushing from the country into the cities, and the gregarious life of childhood and youth in our numerous manufacturing towns and villages, furnish peculiar facilities for the diffusion of corrupt principles and morals. The former find, in their new places of abode, pleasures set before them appealing to every sense, and in gradations adapted to every variety of the intellect. The current of sensuality, more or less refined, is so strong that it too often sweeps almost every thing before it. The village has fewer, but more vulgar entertainments for the young, and temptations peculiar to itself. This life of congregated human beings, where money, leisure, shows, and a succession of excitements are the objects of pursuit, is now, with inconceivable power, educating myriads of children who will soon be called upon to act a most important part in history, deciding, perhaps, the destinies of our government, and affecting, more or less, the hopes of mankind, as involved in this great experiment. Are the public schools justly responsible, if, in such a state of things, a new generation should not turn out to be all that the friends of virtue and humanity could desire? Are we called upon to promise or to believe, that, unaided and alone, they will have the power necessary to turn back the tide of degeneracy setting in from so many different points?

The general tone of society, when at variance with the influence of the conscientious teacher, is a powerful check upon the success of his efforts. Indeed, as to manners and morals, it is society chiefly that educates. The influence of the school-room is limited in respect to time. A part of each day is spent by the pupil in the family, and a part in promiscuous intercourse with others. Every child, on entering a school for the first time, carries with him a character formed elsewhere. This character is what parents and companions have made it; and being daily nourished by intercourse with these, it will be very likely to be maintained, notwithstanding the efforts of the teacher to the contrary. But suppose the teacher to be so fortunate as to gain the victory for the present. When the pupil leaves the school at the early age which is now common with us, he returns to the influences of that same society where he first drank in a poisonous atmosphere, and where, in all probability, the defeated party will retrieve its losses. A teacher may not despair even in these circumstances. He may prevent much evil. He may prepare the soil for some other persons to cultivate with better success. He may produce enough of effect to constitute a sufficient reward for his labors, though far below his wishes. He may, in many instances, make an impression on the heart which time will never efface. At any rate, having done what he could, he will share with the good of all ages in the high satisfaction of having done his duty.

Domestic Discipline and Public Manners.—A distinction must be made between the legitimate sphere of domestic discipline and the more general control of public manners. Who is to guard the morals of the young, when they are abroad and in company with such persons as they may chance to meet? How can their eyes be kept from polluting sights, and their ears from sounds freighted with immorality? Here, at some place of village resort, they see what they ought never to see, and hear words of strife, of ribaldry, and of blasphemy, which ought to be confined to dens inaccessible to childhood. Still worse is it when the streets swarm with juvenile offenders, because the sympathies of the young with each other are so strong. The vicious practices of adults may be so viewed, where proper instruction is given, as to be repulsive, and be turned into a warning. The grosser forms of vice in adults may not be so seductive as those that are more decent. But with children associating with each other it is otherwise. Their vices are more contagious. When a child is outdone by another in wrong doing, there is a silent appeal to the courage of the former, which few have sufficient strength to resist. Children, moreover, have selfish passions. They readily listen to the recitals of a companion who describes the little arts by which he procures forbidden indulgences, escapes the vigilance of parents, and deceives them. One such companion has it in his power to corrupt the children of a whole neighborhood; and it often happens that a group of boys form connections in practising petty vices, which exert a pernicious influence upon their character far outweighing the salutary influence exerted by parents and teachers. It may be said that if parents cannot extend their control over the morals of children generally, they can, at least, keep their own children from bad companions. This is true but in part. Children are so fond of each other's society, and so weary of the monotony of retirement, that they seize greedily upon all the incidental opportunities which present themselves for meeting with companions, making choice of associates rather from congenial tastes and feelings than from moral considerations. The

greatest security will therefore be found to exist in those communities where, by various means, the youthful populaton are generally kept far from the contamination of vice. What may be done to repress juvenile misdemeanors, as they are now manifested too commonly in public places and in the streets, is a subject worthy of consideration. The difficulty lies chiefly with those children who are neglected by their parents, and with others who, when beyond the observation of their parents, are swayed by the example of the former. The negligence of many parents, who otherwise are good citizens, in respect to the moral training of their children, is almost unaccountable. They provide liberally for their physical wants, but leave them, as if strangely indifferent to their higher interests, to form their own moral habits and tastes. They do not apply their minds constantly and earnestly to the subject of forming their character. They neither study the principles, nor inform themselves of the best methods, of training their children to wisdom and virtue. Their minds are engrossed with business, or with the demands of social life. They act as if they believed that a pecuniary provision for the present and future support of their offspring were the main part of parental obligation. But is there anything more sure to end in disaster than leaving indiscreet and inexperienced children, in whom the passions are strong and the understanding weak, to choose their own ways and their own associations?

Popular Literature and Amusements.—The daily papers lie upon the tables of every household. The angry quarrels of editors with each other, the bitterness of political controversy, and the mendacity of the press on the eve of elections, furnish a very unsuitable aliment for the young. And how many of the short, spicy paragraphs, with which the editor or contributor seeks to enliven his columns, are addressed to the sensual passions, in language and tone so lascivious that no pure minded father could read it in the presence of his family. This is the more alarming as a sign of the times, from the circumstance that not only is the supply of material such in amount as no other age ever knew, and the reading habits of the young, in consequence of our public schools, far in advance of those of adults in former times, but that those papers which are the least scrupulous in their moral tone, have often a wider circulation than others, and are even extensively patronized for the use of families. It is not necessary here to refer particularly to much of the lighter literature, of no better moral tendency, which finds its way to the homes of the young, vitiating their imaginations with pictures of scenes which no pure mind can contemplate with pleasure. Many of the popular amusements, too—once an occasional luxury, but now a necessity of the young—have the same character and tendency. They must be adapted to low and vulgar tastes, in order to attract the multitude and be made profitable. A large proportion of the support they receive comes from children, for whose injury the fond, but inconsiderate parent, pays the price more freely than he does his school tax.

Hasty Legislation to be Avoided.—As we are destitute of the guidance of any well-settled and long-tried system of school legislation, in advance of our own, in any of the States of the Union, and as those of the old world are not adapted to our condition, we are obliged to develop a system of our own as exigencies arise, and to proceed sometimes without the light of much experience. Many new laws relating to schools have been enacted within a few years, and these do not always perfectly harmonize with each other. It would, perhaps, be well if new laws proposed for adoption, should first undergo a little more careful scrutiny by some person, or persons, familiar with all the existing enactments on the subject, and the principles on which they are founded, so that a strict consistency and unity of character should be preserved. The importance of this subject will not be diminished at all by the revision of the laws now in progress. Unless great caution be used, the adjustment of all the parts of the system which are now so disjointed, will soon be disturbed again. The danger lies more on the side of over-legislation than of too little legislation.

School Books and Apparatus should not be supplied by the State.—Admitting the necessity of furnishing the public schools with books, maps, and apparatus, there is no good reason why the towns and cities should not themselves supply the means of doing it. They certainly have the ability. If they are unwilling to do it, there is little reason to believe that they will provide for the safe-keeping of this species of property. The towns, if they purchase their own books and apparatus, can select precisely what they need, whereas the State cannot adapt its bounty to circumstances, but must adopt the same measure for all. It will thus happen that schools already furnished with these things will have a superfluous supply. The history of the past shows that money so appropriated does not accomplish so much good as a less amount would do, if raised and expended by the towns themselves.

PROVINCE OF THE STATE AND THE PEOPLE.—The State does not attempt to confer the boon of education upon the people; it only gives them the power and the requisite facilities for supporting schools. It indeed requires certain schools to be maintained; but it leaves, in great measure, to the will of the people the degree of excellence which they shall attain. While this truly philosophic and well balanced system, devised by the wisdom of the State, receives the admiration of the world, there are, we regret to say, towns, few indeed in number, and becoming fewer every year, which complain of State interference, and wish to be left in their native independence. It is regarded as an inconvenience to be compelled to maintain public schools for a given length of time each year, and to be at the expense of paying for the services of the school committee, which might so easily be dispensed with.

Human foresight can scarcely devise a way of organizing a Board of Education, and of appointing its members, and the officers and agents employed in its service, in which the liabilities to abuse shall be less, and the certainty of usefulness greater. Men selected for their wisdom and experience devote their best thoughts to the great interests committed to their hands. The man whom they place at the head of the department, enjoying their confidence, and receiving their counsel, devotes himself exclusively to the service of the people, collecting from every quarter the most valuable information, and throwing it out from the heart of the State to circulate in every artery and vein. Side by side with him stand able men, familiar with the practical working of every part of the system, who visit every town and village in the State, and render most valuable assistance to the local committees, and to the teachers of the schools. Besides all this, the Board has rendered a noble service by its Normal Schools and Teachers' Institutes, in elevating the teacher's profession to its present high position. It is strange indeed that there should be a single town in the Commonwealth that can overlook the great benefits resulting from this wise policy.

The increased intelligence of the people will, among its other results, manifest its power in the increased ability and skill with which they engage in their various enterprises, producing within the period of a single generation an increase of wealth which will far more than compensate for all the cost of education. Any town which enjoys the reputation of having good schools, will find, in that circumstance, an element of growth. It will, on that account, draw to itself from abroad wealth, intelligence and virtue. Both the value of real estate, and the refinement and civilization of the people will be enhanced. If we take a higher view, and inquire how the inhabitants of a town can make the most valuable contribution towards the improvement of mankind, we shall unhesitatingly reply, by sending out into the world well-educated and well-trained men and women to act their part with honor in advancing the progress of civilization, and all the interests of society.

IRREGULAR ATTENDANCE OF PUPILS.—The irregular attendance of the pupils of the public schools is a subject that deserves the attention of all who have, in any measure, power to diminish it. The loss of one-fifth of the benefit for which pecuniary provision is made by a public tax, is a just subject of complaint on the part of the tax-payer. If society has the right to levy a tax upon his property for the purpose of preventing the evils consequent on a state of popular ignorance, it would seem that he is justly entitled to expect that there shall be no culpable neglect in attempting to secure the full amount of the benefit contemplated. The parent is bound by a two-fold obligation—to his children and to the community—to see that the means of education provided at the public expense, be not neglected by his children. Each town and city is also bound to use all reasonable endeavors, through appropriate officers, to bring all the children living within its borders under the influence of the public schools. If it can be shown that children ought to be in the schools at all, the same arguments would prove that their attendance should be such as to accomplish, in the best manner, the object for which the schools are supported. If parents have no just right to withhold their children from the schools, much less have they a right to interfere with the progress of the children of others by the irregularity of the attendance of their own. If it be admitted that a pupil may attend school at just such times as he or his parent may choose, and is entitled to receive instruction accordingly, it will follow either that his class ought to be detained till his deficiency in the class exercises shall be made up, or that special instruction ought to be provided for him out of the class. But no one will pretend to such a right as this. Various expedients have been resorted to by different towns to diminish this irregularity of attendance. In some places it has been made the subject of public discussion, and the sentiment of the community has been so improved as to act very favorably upon the minds of parents. In others, a custom prevails, of publishing in the school report the names of those who have distinguished themselves for their regular

attendance. In many towns, rules have been established by the school committee, excluding from the school those whose absences exceed a certain amount. A still better method is that of degrading such pupils, by putting them into a lower class. Great success has, in several instances, attended the labors of persons appointed to look after absentees, to inquire into the causes of their absence, and to use proper means to bring them back to the schools. No doubt different courses will need to be pursued in different places. Mild and persuasive measures, if successful, will prove the best. In manufacturing towns and cities, something more may be required. A very important point will be gained if the public attention is so drawn to the subject as to lead to any course of action upon it.

Deficiencies in Moral Training.—In respect to the moral training of the young, there are still greater deficiencies than in their intellectual training. The causes of this are various. Too frequently the subject receives but little direct attention. It is looked upon as a purely incidental part of education, and is either neglected or treated in a desultory manner. This is the first error to be corrected. All the parties concerned in the management of the public schools, must, as has been already observed, come to view this subject in another light, and to regard the discipline of the schools in the light of its direct and vital connection with the public morals. Reference has already been made to the duty of the community at large, and of parents in particular. But when the public sentiment, parental influence, and the school supervision, are all as they should be, there will still remain a great work to be performed by the teacher. If he thinks lightly of this part of his duties, he is not worthy of his place. How far the ranks of the profession would be thinned, if all such incumbents were dismissed, it is not for us to say. But it is quite clear that the schools should never be committed to such hands. None ought to be selected for this responsible office but persons of moral earnestness, who themselves attach great importance to the subject of morals, and who give satisfactory evidence of it by the labor they bestow upon their own moral improvement. A person who does not actually make it his definite aim to study his own heart, to cultivate and strengthen all the pure and noble affections, to control his passions, and to subdue his inordinate appetites, cannot have that moral discipline, nor that knowledge of its means and processes, which is indispensable to the successful cultivation of the morals of the young.

Common Mistake in the Discipline of Children.—The most common mistake in the discipline of children is that of judging their moral acts by the standard of our own minds. Many things which appear clearly wrong to a person of experience and mature reflection, do not appear so to a child. His feelings may readily respond to simple principles that are purely moral, so far as they are understood. But maxims which are the result of the experience and observation of centuries, though current in society, and identified in our minds with moral law, do not come to the uninstructed mind of a child with the same meaning or with the same authority as they do to ours. So it is with many of those rules which we have come to adopt from expediency. If we put all these upon the same footing with the simplest dictates of conscience, and suppose the child to understand them and feel their force as he does the latter, we do him great injustice. Discipline administered without regard to this distinction will often be founded on motives and feelings falsely attributed to the child, with an appeal to a sense of obligation which has, as yet, no existence in his mind. If, instead of judging his motives by a standard known only to adults, and making him feel an authority that seems to him purely arbitrary, we were to seize upon some moral sentiment within him, whose authority he understands and acknowledges, and to refer the act under consideration to that sentiment or principle, both parties would then be acting upon common ground, and the wrong reprehended by the one would be recognized and acknowledged by the other. Indeed, an individual act can be shown to be wrong, before a general maxim or abstract rule, applying to a large class of such acts, can be comprehended. That arbitrary procedure which makes one feel the terror of authority without feeling the force of moral obligation, often produces a deleterious effect by creating a keen sense of injustice.

Failure in Government.—Without much observation and reflection, it is not to be expected that one can succeed in a work of such delicacy and complexity. In school discipline the facts of the case merely give the starting point. The inclinations which predispose one to such acts, the impulses which moved him to it, the law by which such inclinations and impulses can be checked, the effect of certain modes of treatment, the choice of the best means and the use of them in the proper time and manner—these are points on which the inexperienced teacher has not sufficiently reflected. He proceeds, at once, to handle weapons which he does not know how to use, and whether he do more harm than good is a mere matter of chance. An act done in a passion is punished in a passionate manner;

and the evil, instead of being remedied, is strengthened. Forgetting that the teacher's spirit begets its like in the pupil, he proceeds quite confidently to cast out devils by Beelzebub, the prince of the devils. He, by an injudicious threat, deprives himself of the liberty of using any of the means at his disposal except the particular one—not the best perhaps—to which he is committed. A skillful disciplinarian will have large resources. If one method does not succeed, he has another at hand; and instead of being embarrassed, he is clearer in his judgment as to what is needed than he was before. This fertility of expedients is the result of much thought, suggested generally by personal experience. The teacher has no right to undertake so delicate and responsible a task without much preparation and much thought. He must, indeed, begin without experience, but not without observation and reflection. If a young teacher would first become an assistant, and in that situation treasure up experience, under the guidance of another, it would prevent many of the failures which now occur. When inconsiderate persons have undertaken to teach without having studied the subject of school government, school committees could aid them by calling their attention early to the subject. Many a teacher could in this way be so prepared for an emergency as to be able to meet it without a total failure, and so be saved from the disgrace of an early dismissal. Though the teacher must reflect for himself, and have a personal knowledge of the principles to be acted on, he can be aided in his reflection by others. It is no uncommon thing for one who fails in government in the first school, to succeed well afterwards. The first furnishes materials for reflection, and compels one to study the nature of children, their temptations, their weakness, and their wants, and to learn by what means a wrong feeling may best be corrected, or a right feeling strengthened. And when once the teacher begins to reflect carefully, and to proceed upon settled principles and by sober calculation, there will soon be, with a person adapted to the profession, an approximation to the right way, that can not in the end fail of being successful.

HIGHEST SUCCESS IN GOVERNMENT.—There can be no true moral training, no formation of character on great and immutable principles, where nothing more is done than to enforce rules established for convenience. A child ought to be taught to regulate his actions by the will of God. In one respect the teacher and pupil ought to stand on a level with each other, both bowing to the will of their Maker, and performing their respective duties to each other out of regard to his authority. A school should be led to view itself as under the inspection of an All-seeing Witness, and each member to hold himself accountable to Him for the spirit and character of his deportment. Let these comprehensive principles be kept before the mind, and they will have a weight of authority which every one will feel. There will be a sense of obligation lying back of the teacher's rules, making it the easier for him to require of them the performance of their duties from the fact that both he and they together are accountable to a higher being. In this way the moral natures of children are called into action. The conscience has its part to act. A line is dropped which sounds the heart to its lowest depths. Character thus formed has strength and firmness. Its roots strike deep and spread in every direction, giving a vigorous growth to its trunk and waving branches, and holding them firmly in their true position. Such a method of treatment would prevent many of the collisions which will otherwise occur between the parties. It will place both upon higher ground, and render the one voluntarily subject to the other. While the latter acknowledges his obligation to be just and kind, and to govern according to the will of his Master in Heaven, the former will generally feel the equity and propriety of being held to the corresponding obligation of obedience and respect. So far as success attends discipline conducted on these principles, its influence will extend to all places and to all times. It will follow the pupil as he leaves the school room, and manifest itself in all his intercourse with others. His companions will be treated with kindness. Wrong and violence will be inflicted upon no one, even the most helpless. The rights of property will be regarded, though the possessor may be far away, and though there be no one at hand, either to restrain from evil conduct or to witness against it. The home will feel the power of such a school discipline. The habit of respect and prompt obedience to the teacher, and of affectionate and courteous intercourse with pupils, will manifest its power and influence in the presence of a parent, brother, or sister.

TEACHERS' INSTITUTES.—Eleven Teachers' Institutes were held during the year, with 1,372 members, or an average of 125 teachers to each Institute.

The Report of the Board of Education contains an Appendix full of valuable statistics, (a summary of which is given below, but which to be appreciated must be examined in detail,) and Reports of officers charged with the supervision of the schools. In no State are the defects of the schools more faithfully and fully dis-

cussed and pointed out for public scrutiny and reprobation. We have room for only a few extracts from these reports.

SUMMARY OF STATISTICS.

Number of towns (not including three incorporated in 1855,)	328
Number of towns that have made returns,	327
Number of Public Schools in the State,	4,215
Number of persons in the State between 5 and 15 years of age,	213,934
Number of scholars, of all ages, in all the Public Schools, in summer,	189,997
Number of scholars, of all ages, in all the Public Schools, in winter,	202,709
Average attendance in all the Public Schools in summer,	143,973
Average attendance in all the Public Schools in winter,	157,657
Number of children under five attending Public Schools,	15,601
Number of persons over fifteen attending Public Schools,	21,877
Number of teachers in summer—males, 375; females, 4,262; total,	4,637
Number of teachers in winter—males, 1,739; females, 3,071; total,	4,810
Number of different persons employed as teachers in the Public Schools, during the year,—males, 1,809; females, 5,325; total,	7,134
Average length of Public Schools, seven months and sixteen days.	
Average wages of male teachers per month, including board,	$41.45
Average wages of female teachers per month, including board,	17.29
Amount of money raised by taxes for the support of Public Schools, including only the wages of teachers, board, and fuel,	$1,137,407.76
Increase for the year,	123,935.50
Income of surplus revenue appropriated only for Public Schools,	9,491,67
Amount of voluntary contributions of board, fuel, &c.,	37,776.09
Income of local funds appropriated to schools,	34,460.59
Amount received by the towns of income of State School Fund,*	48,611.04
Capital of State School Fund,	1,625,982.30
Amount paid by the towns and cities for superintendence of Schools,	33,149.86
Aggregate returned as expended for wages, fuel, and superintendence,	1,266,436.42
Amount raised by taxes (including income of surplus revenue) for the education of each child in the State between five and fifteen, per child,	5.36
Number of towns that have raised the sum of $3, or more, per child,	244
Number of towns that have raised the sum of $4, or more, per child,	131
Number of towns that have raised the sum of $5, or more, per child,	65
Number of towns that have raised the sum of $6, or more, per child,	35
Number of towns that have raised the sum of $10, or more, per child,	5
Number of incorporated academies returned,	71
Average number of scholars,	4,716
Aggregate paid for tuition,	$82,496.10
Number of private schools and academies,	546
Estimated average attendance on private schools,	17,571
Estimated amount paid for tuition in private schools,	$271,290.06
Amount annually expended to promote popular education in Massachusetts, exclusive of the cost of erecting and repairing school-houses, of providing school books, of appropriations by the legislature for Normal Schools, Teachers' Institutes, &c., and of the support of Collegiate, Professional and Charitable Institutions,	$1,620,222.58

In addition to the above statistics of Public Schools, we glean the following items of expenditure for other educational and humane purposes for 1855.

State Reform School for Boys at Westborough,	$47,960
State Industrial School for Girls at Lancaster,	19,662
Education of the Blind at Perkins Asylum,	10,552
Education of the Deaf and Dumb at American Asylum,	8,000
Education of Idiots, (including $25,000 for building,)	30,000
State Normal Schools,	16,000
State Scholarships in Colleges for High School teachers,	2,400
Expenses of Board of Education, Secretary and Assistant,	5,000
Expenses of Teachers' Institutes,	4,000
Expenses of Agents and Lecturers of Board of Education,	2,500
State and County Teachers' Association,	600
American Institute of Instruction,	300
State Board of Agriculture,	9,000
Agricultural Societies,	10,542
Eye and Ear Infirmary,	2,500
Support of Pauper Insane,	53,300
Support of Paupers and State Alms-Houses,	200,000
Agent for Discharged Convicts,	1,000

* The law requires each town and city to raise by tax at least $1.50 for each child between the ages of 5 and 15, as the condition for receiving a share of the State School Fund.

Professor Alpheus Crosby, one of the Agents of the Board, reports:

PERFECTION NOT REACHED.—Massachusetts has so worthily acted her part as pioneer, not only in the first institution of free schools for all, but, more recently, in that reawakened interest and those signal improvements in our systems of public instruction, which one of the early principals of your Normal Schools has so happily termed, in a late address, the *revival of education*, that one would be glad to believe, if possible, that her schools were now without fault—the goal of perfection quite attained. But no one can be practically familiar with our common school system without the deep conviction that, however much may have been done, there still remains much to do; that the system, with its venerable foundation and recent improvements, has still many inequalities and irregularities of action, and many unharmonized details; and that its noble theory is not unfrequently degraded by the unworthy representation of a mean practice.

INEQUALITY OF EDUCATIONAL PRIVILEGES.—One of the most remarkable features in the educational aspect of Massachusetts consists in the striking contrasts presented by different towns (lying, perhaps, side by side, and closely akin in other respects) in the interest, zeal, liberality, wisdom, and efficiency, with which they manage their public schools. Almost all strangers, and most citizens, are so little aware of the extent of these contrasts, that they are almost sure either to over or undervalue the educational condition of the State, according as they take, for the basis of their estimate, a town of the higher or lower class.

LENGTH OF SCHOOLS.—In whatever other respects the State is advancing educationally, it certainly does not appear to be in the amount of schooling which it furnishes to its children. In the school abstracts for the years 1844–5, 1845–6, and 1846–7, the average length of the schools is given, for each year, as seven months and twenty-five days, while for each of the years 1853–4, and 1854–5, it is given as only seven months and sixteen days. As these months are only *school months* of four weeks each, it follows that the average of our school year can be but little more than thirty weeks, or not much above half of the calendar year.

CHOICE OF SCHOOL COMMITTEES.—This is too often influenced by other considerations besides the best welfare of the schools; as party spirit, sectarian jealousy or compromise, personal pique, love of change, weariness of hearing Aristides called *the just*, &c.

POOR SCHOOL-HOUSES.—How many wretched school-houses are there still in the Commonwealth, wretchedly contrived, wretchedly built, wretchedly furnished, wretchedly ventilated and warmed, wretchedly kept,—no, wretchedly *neglected* and *abused*, and themselves abundant sources of wretchedness! The condition in which many of our districts suffer their school-houses and school premises to remain year after year, is amazing,—abhorrent to every sentiment of propriety, taste, comfort, health, decency,—and would be quite incredible, were it not attested by the eyes, and other no less credible witnesses.

BOARDING ROUND.—This practice, while its advantages and disadvantages in other respects are perhaps nearly balanced, deprives the teacher of that quiet room, with the books and writing desk, which every teacher needs, and of that daily study and special preparation for the school exercises, without which no teacher can do his best, and converts the whole school season into a continuous period of visiting, with its various admixtures, in different cases, of feasting, parties, games, chit-chat, jokes, flirtations, and gossip.

CHOICE OF PRUDENTIAL COMMITTEES.—The custom is still extensively prevalent of appointing the citizens of the district to this office, mainly upon the principle of rotation, and then of leaving each one to keep the school machinery in motion his year without a district tax. He must take care, of course, that the old house does not fall down *on his hands*. If the boarding round system prevails, he is expected to furnish gratuitously an over-Sunday home to the teachers whom he employs, and a room where, through the week, they may keep their trunks and change their clothes; but then he is regarded as excusable if he employs such teachers as will be agreeable to his own family, some kinsman or kinswoman, it may be, or, perhaps, one of his own children.

And as, upon this system, the district meeting becomes a mere form, it is no wonder if no more attend it than are absolutely requisite to carry out the form, and these perhaps through the special solicitation of the clerk.

CHANGE OF TEACHERS.—The flittings of teachers from place to place, and their changes and interchanges of their scenes of labor, look, to one who can dart his eye over the field, like a rapidly played game. But how unfortunate a game to the pupils who are played upon, I need not remark.

From the Reports of the Town School Committees we might select extracts to show that, in the opinion of persons best qualified to judge from a personal knowledge of the facts, there are great evils and defects to be removed. We shall notice but one evil—one of the most prevalent and formidable evils in the practical workings of our public school systems.

TRUANCY, NON-ATTENDANCE.—One of the most perplexing difficulties which the committee have had to encounter during the past year, is that of truancy and non-attendance.

The vicinity of some of our school-houses is polluted by the presence of profane and vulgar boys, not only vile themselves, but exercising a most disastrous influence upon their less depraved associates. Efforts have been made to induce their return to the paths of virtue and decency, and in some cases with success. Where the conduct of the incorrigible has fallen under the cognizance of the law, the law has been enforced. But many cases municipal regulations do not reach. The question at present is, not so much what measures shall be taken to reclaim the vicious, as how shall we protect the innocent.—*Chelsea.*

How much of truancy there is among the scholars of our public schools we can not tell. But we fear there is no little. We fear that many very busy and very easy parents, think their children are at school while they are off playing in the streets, and perhaps in actual mischief.—*Bradford.*

The prevailing occupation of the people of this town renders the labor of children, especially male children, available at an early age; and offers a strong temptation to employ their hands to the impoverishment of their minds.—*Groveland.*

Your Committee can not refrain from again calling the attention of the town, to the irregularity of attendance of the pupils upon the schools.—*Ipswich.*

The Committee are constrained to believe, that the evils of irregular attendance of the pupils at the schools are not fully comprehended.—*Nahant.*

We are satisfied that the great irregularity of attendance is attributable mainly to inattention and inefficiency on the part of the parents, and until they are brought to see and feel the evil—the serious evil they are inflicting on their children—it will not be wholly removed.—*Saugus.*

There is in the community a great disregard of punctuality in the attendance of the scholars.—*Groton.*

The whole number of truants, 306. Of these, 292 were boys and fourteen were girls. Twenty-two of the boys were arrested by virtue of warrant; two of these were sent to the house of employment and reformation for juvenile offenders, for two years, three for one year, and four for six months; nine were bailed by parents or by friends, and for four employment was found. Whole number of absentees, (children not attending school and apparently out of employment,) 482. Of these, 371 were boys, and 111 were girls. Of the truants and absentees, 166 were American, and 620 were of foreign parentage. Of the absentees who were placed in schools, forty-four had never attended school in this city.—*Lowell.*

The great irregularity of attendance at our public schools is an evil loudly demanding remedy.—*Malden.*

There is yet a lack of regularity and punctuality in the attendance of scholars at the different schools.—*Stoneham.*

An average absence of four or five daily and even of eleven in the instance of one district during the summer term, is a serious matter, and your Committee believe wholly unnecessary. The actual loss in the latter school amounted to the enormous aggregate of eight hundred and forty-seven days, or more than one-fourth of the whole term.—*Harvard.*

The highest average attendance in any of the schools is 90 per cent., while in some it is as low as 35 per cent.—*Northbridge.*

TEACHERS' ASSOCIATIONS. The sum of $150 is paid annually to the State Teachers' Association, and the sum of $50 to each County Teachers' Association, in aid of the expense of holding one or more annual meetings.

AMERICAN INSTITUTE OF INSTRUCTION. The State has paid annually, since 1835, the sum of $300, in aid of the American Institute of Instruction.

MASSACHUSETTS TEACHER. A monthly periodical, now in the seventh volume, is published under the auspices of the State Teachers' Association, without any aid from the State.

MICHIGAN.

Annual Report of the Superintendent of Public Instruction, (Francis W. Shearman,) *made to the Legislature for the year* 1853. 215 pages.

We have not received a Report of the Public or Common Schools of Michigan later than that for 1853. This document contains the Annual Report of the Regents of the University; Report of the Board of Education, charged with the supervision of the State Normal School; Proceedings of the State Teachers' Association; and Annual Report of the Board of Education for the Public Schools of Detroit, with other valuable papers. As the Report of the Superintendent does not go into much detail respecting the working of the system of primary schools, we can make but few extracts.

SYSTEM OF TAXATION.—The system of taxation for the support of the primary schools is three-fold. It consists of a tax of two mills on each dollar of the valuation thereof, assessed by the supervisor upon the taxable property of the township; twenty-five dollars of which is appropriated to the purchase of books for the libraries, and the remainder is apportioned to the several school districts of the township for the support of the schools therein, and collected and returned in the same manner as State and county taxes; of a tax raised by vote at the annual school district meeting, not to exceed one dollar for every scholar in the district, between the ages of four and eighteen years, which tax is also returned to the supervisor, and levied, collected, and returned in the same manner as the township taxes are levied, collected and returned; thirdly, a rate bill made out by the director of the school district, against the person or persons sending children to the school, for the amount of tuition and fuel for which he is liable, collected by the assessor, if necessary, by distress and sale of goods and chattels, to make up any deficiency which may arise after the income of the primary school fund, and the funds arising from the sources of taxation above mentioned are exhausted, for the support of the schools.

STATISTICS.—The number of whole districts, as reported, is . . . 2,186
The number of fractional districts, as reported, is 797
Whole number of districts from which reports have been received, . . 2,462
Number of children in each district, between 4 and 18, attending school, 131,355
Whole amount paid for teacher's wages, ... $125,063.62
Whole amount raised by the districts, for all purposes, ... 114,675.69
Amount paid for building school-houses, ... 55,536.69
Amount paid for repairs, ... 2,941.00
Amount raised by rate bill, ... 37,833.36
Amount of mill tax as reported, ... 30,009.91
District tax, ... 12,041.86
Amount of fines, penalties, &c., ... 868.45
Number of volumes in township libraries, ... 100,161

We shall have occasion to refer to the University, the State Normal School, and the Public Schools of Detroit, in the progress of our work.

MISSISSIPPI AND MISSOURI.

We have no official or legislative reports relating to the public schools of Mississippi, or of Missouri, except the annual report of the Directors of the Schools of St. Louis, to which we have already called attention in No. 3, (Vol. I., p. 348.)

NEW HAMPSHIRE.

In the absence of the last Report of the Board of Education, composed of a member or commissioner of common schools for each of the ten counties of the State, we make a few extracts from the "*Report of the Commissioner* (Jonathan Tenney,) *for the county of Hillsborough, to the Secretary of the Board, dated Manchester, May,* 1856." The report is a full, direct, practical document, and gives a better insight into the condition of the schools, and the working of the system, than a more general report.

TEACHERS' INSTITUTES.—The law obliges each town to raise by tax a sum sufficient to defray the expense of one or more Teachers' Institutes, held under the appointment of the commissioner of the county. We extract a few paragraphs from this part of Mr. Tenney's report.

During the year past, 437 members have attended the three Institutes of this county. This does not take into account many whose names are not registered because of their youth or brief attendance, nor does it mean the many school committees and citizens who are often times benefited quite as much as the teachers. In this attendance, undoubtedly, are the names of some who do not teach; of some, also, from other counties; not more, probably, than from this to other counties. Among these are most of our oldest and best teachers. Among them are about half of the teachers in our last winter schools, and probably two-thirds of those in our next summer schools. Of thirty towns in the county, *twenty-eight* were represented in these Institutes.

I have watched teachers who have attended Institutes as I have visited their schools, and I feel sure that I can tell them from those who are too conceited to improve, who are "wiser in their own conceit than seven men who can render a reason." Institute teachers are sought for by judicious committees now; they are shedding light that cannot be concealed.

Institutes cannot give book learning, common sense, nor aptness to teach, any more than the best of school teachers can supply to mind the deficiencies of nature. But whatever of good qualities for teaching exist in any one, may be vastly quickened and developed by proper attendance upon any Institute of tolerable regulation and instruction.

Certain it is, with all their faults, Institutes have done more than any other agency ever did, to elevate our school teachers, and divest our schools of many of the barbarian notions and habits, that, ten or fifteen years ago, were common in them. This, no observing, reflecting man will deny. Nor is the day of their usefulness past. They are improving. Men of practical judgment; men of large and successful experience; men acquainted with the history of education and the most approved modes of reaching mind and developing its faculties, men who have been born and nurtured, or have long labored in our midst, are beginning to be sought for to guide and instruct in them.

COMMISSIONERS VISITS TO THE SCHOOLS.—The law requires the Commissioner to spend at least one day in each town in his county.

In my circuit I visited 127 schools, taught by 152 teachers and numbering 5,616 pupils. This is an average of more than four schools and five teachers to each town, and, if I mistake not, exceeds, in this respect, the labors of any of my predecessors in office. Besides these I have gathered by "inquiries and other means," pretty full and reliable information of the character of most of the remaining teachers of the county and the condition of their school-houses and schools.

In my visits my plan has been to ascertain—1. The general condition of the school-house, with its yard and appurtenances. 2. The adaptedness of the size of its rooms, its warming and ventilating and cleansing apparatus, and its seats, desks, and other furniture, to its appropriate objects. 3. Its supply of maps, charts, black-boards, and other illustrative apparatus. 4. The studies, classification and text books of the school. 5. The discipline of the school as manifested in the look, tone and movement of teachers and pupils in relation to each other and the visitors present. 6. The character of the teacher as a teacher, as exhibited in conducting class exercises. 7. The habits of study and thought of the pupils. To ascertain this was deemed of more importance than to ascertain how far in the text book each one had been, or what studies each one was pursuing. Teachers were always desired to conduct the exercises in my presence, and present their *best* samples of scholarship. I, usually, asked a few questions, more to test the pupil's habit of thinking and study than to ascertain his real knowledge; and often added a few remarks with illustrations according to my own sense of duty, calculated in my judgment, to change the monotony of common examinations, to break up the old humdrum modes of saying and hearing lessons, and suggest to teacher and pupil a course tending to awaken thought and develop practical knowledge.

I held evening meetings and addressed the citizens in every place save Manchester, Milford, Merrimack and Weare. The estimated aggregate of my twenty-six audiences, is about six thousand.

Among the subjects presented were—Hindrances to the Teacher's success—Origin and Progress of Education in New England—Character and influence of New Hampshire mind, and the necessity of sustaining our good name by increased attention to home and school culture—Economy of public schools—Practical edu-

cation—District system—Graded schools—Relations of Prudential and Superintending Committees—School supervision—The demand for better teachers—Influence of home training in our schools—Duties of parents to the teachers of their children—Teachers' Institutes—State Normal School—Text Books—How best to class, teach and govern a school—The demand for central High Schools of a higher grade in every town, and their economy—School architecture—School apparatus. In presenting my views upon these topics, I have aimed at no display of oratory, but have spoken right on, what I deeply felt to be true, with the freedom of conversation among friends, endeavoring to urge arguments based on considerations of the highest self interest and the most sacred obligations of every one to his God, his country and posterity.

DISTRICT SYSTEM.—This is one of the inherited evils pertaining to our school system. It has been carried to an extreme probably never dreamed of by its originators. Most of our towns have, at least, twice as many districts as are needed. My opinion is, that all district lines should be abolished, and that all the school property should be owned and managed by the town, under the direction of a suitable committee; that school-houses should be located and built sufficient to accommodate the children of the town, at the rate of from thirty to fifty to each school-room; and that attendance should be directed by the school committee.

SMALL SCHOOLS.—These come from the district system. There are nearly ninety districts in the county having an attendance of less than twenty pupils; many of less than ten; most of less than thirty; only about sixty of forty and more. In one district of three pupils, about $80 were spent for schools in one winter. As our school money is frequently divided, the scholars in the smaller districts may get from $10 to $25 each, annually, while in the larger districts, less than $1 is the average amount of school money to each pupil.

LENGTH OF SCHOOLS.—Very rarely have our rural districts more than twenty weeks of school each year; many of them not more than twelve; some not more than six or eight. Now, these may be better than nothing, if kept several seasons by the same good teacher. As now managed, many of them are of but little value to the intellectual and moral natures of the young, especially as they are usually kept by *cheap* teachers in very *cheap* school-houses.

CHANGE OF TEACHERS.—The young mind needs to be cared for and educated by those who understand its powers, its motives, its tendencies, its peculiarities. How can these be known by the teacher who comes to take direction of the child, a stranger; leaves at the end of a few weeks, just as he begins to understand his trust and his duties, and leaves, never to return again, for another to follow him in the same blind and erring course. Yet, this is the usual way in our public schools.

FEMALE TEACHERS.—They are now, more than formerly, intrusted with the management of youth of more maturity in our winter schools; and this, in most cases, with equal success. Economy first led to the trial; and now six to one of the teachers of our schools are females, a majority of our winter sessions being committed to them, and, as aforetime, nearly all the summer. The big boy, of rude manners, is tamed by the magic skill of the mistress more than by the stern command and uplifted rod of the master. The school-master has learned a lesson from his "better half," in government as well as in teaching. This is well; and, as the experiment succeeds so well, it should now pass into a habit, to employ females of proper age and power, in most of our winter schools, not only because they can be obtained for less wages, but because they are more likely to be successful.

PARENTAL VISITS.—We find more of these than formerly. Yet they are "few and far between" in most towns. But here is a great fault—I think the greatest *radical* fault—the cause of bad houses, bad teachers and bad scholars—that parents and citizens do not exhibit that all-pervading, deep and abiding interest in the practical working of their schools, as they do in those things of minor importance—their farms, their merchandise and their other common affairs.

HOME INFLUENCE.—Very foolish is the parent who has failed to govern his few children who have been with him daily from infancy, and expects the teacher, a stranger, to manage many with unerring skill and perfect success. Parents must govern well at home, if they would find no trouble in school; and, if they fail, they will do well to look upon teachers with charity. Very rare it is for children well trained at home to have trouble in school.

SUPERINTENDING COMMITTEES.—The plan of appointing only *one* man in each town to this office is rapidly gaining ground, and gives general satisfaction. Twenty-two out of thirty towns had only one man in this office last year. This

one man has a unity in his plans; he knows what he has to do; he knows when it is done. The great difficulty is to find that one man every way fitted, willing to take the office, perform its duties and incur the odium often arising from a rigid fidelity, for the meager compensation allowed.

PRUDENTIAL COMMITTEES.—This office ought to be abolished, as not only useless, but mischievous, on the whole, in its effects on our schools. Those who hold it are, more frequently than otherwise, unfitted to judge of the proper wants of the school. It is often looked upon as a burden which each member of the district is to share in turn. Sometimes the *turn* comes to a man worthy of the trust; while most use it to put some friend into the school as a teacher, without regard to fitness, and then leave all other matters to destiny, except that of *economy*, which is supposed to consist of saving as much money as possible from good teachers and comfortable school-rooms, and spending it in hiring a cheap teacher, and prolonging the dreary and profitless days of the school, at least as long as usual. How much better it would be to intrust prudential affairs with the same man who has the general superintendence of schools. Then there would be no unpleasant difference of views between these two functionaries. Teachers would be examined independently, and those adapted to the wants of each school selected from the best; the houses would be properly repaired and furnished in a manner to afford some equality of treatment in all the schools in town; there would be no neglect of notice in beginning and closing schools. These and many other considerations point to the necessity of a reform in this matter of dividing duties upon a matter in which there should be greatest harmony.

SCHOOL-HOUSES.—The pupils and teachers of our winter schools suffer more than can be told or even known, from want of proper heating and ventilating arrangements. Most suffer from too much heat, especially those who sit near the stove, or under the huge funnel of a low room. The head, which ought not to be, is heated, while the feet which ought to be very warm, often suffer from cold. No other ventilators were needed when the old and capacious fire places were in use; but now they are quite as needful as stoves. Nor do cracks in the walls or ceiling answer the purpose, admitting fresh cold air upon those exposed to its fickle currents. If the story of sick rooms and graveyards could all be told, there would be sad associations about the heated and poisoned air and the chilling currents of school-rooms. More children die every winter from this cause than from all the "catching diseases" of our climate. Will parents who love their children see to these things?

WANT OF GRADED SCHOOLS.—What can even the best teacher do with from fifteen to thirty classes in a day upon various subjects, and composed of pupils of various ages, powers and attainments? And this, to say nothing of governing and other duties. I find few district schools with less than the former number; a few with more than the latter. In such schools there can be no discreet government; no thorough teaching.

We have as yet, no *town* Grammar or High Schools. Certain districts have them, the privileges of which are sometimes shared by advanced pupils from other districts. These schools ought to be made common, in property, expense and advantages, to the whole town or city.

PRIVATE SCHOOLS.—Private select schools are very common in our villages, particularly in the autumn. These are generally established by persons in immediate want of funds, of no particular interest in the school or the people beyond the term of school, and with no peculiar fitness for their position. They are without special supervision or accountability. While some are very useful, and all may be more or less so, in awakening a desire for further pursuit of knowledge, there is much time wasted in beginning and closing one short term kept by a stranger, and little done that can be well defined. How much better to have the money, spent upon such schools, expended upon schools under public direction and inspection, taught by some well known, devoted, successful man, himself, perhaps, a citizen, employed year after year, so far as the money raised will allow. The liberal patronage bestowed upon these schools, as faulty as they are known to be, indicates the public demand for more school education than the public schools afford.

We do not object to permanent Private Schools managed by professional teachers of discipline, knowledge and skill. They often possess peculiar advantages, and will always be patronized by certain whose wants they are designed to meet. But we do think that these ephemeral select schools should give place, at once, to better public schools.

With a proper district system and due regard to grade of pupils, the requisite central High Schools, securing to the children of the town advantages as good as

can be found in most Academies, could be established and sustained annually from twelve to forty weeks, in every town of 600 inhabitants, at an expense not exceeding what the public schools now cost together with the expenses paid in academies and select schools.

ACADEMIES.—There are several institutions of this kind in this county, kept in operation all the year, under men of learning and worth, deservedly enjoying public confidence. Some of them have long shed a light over a wider space than our thirty towns; they have done much toward furnishing good teachers and good men and women in every position of honor and usefulness. They deserve honorable mention in a report upon public schools. Their Principals are among my best counselors, my helpers, my friends. I am not ungrateful; and may the public not be ungrateful to them.

Since the foregoing extracts were in type we have received a copy of the "*Tenth Annual Report upon the Common Schools of New Hampshire; the same being the Sixth Annual Report of the Board of Education, submitted June*, 1856. 440 pages. This voluminous document contains the organization of the Board for 1855-56; Report of the Board of Education to the Legislature; Reports of the County Commissioners of Common Schools to the Board; Abstract of the Town Superintending School Committees' Reports; List of Town Superintendents; Catalogue of Apparatus for Public Schools; Books of Reference, for Teachers and Schools; Tabular view of the condition of the Schools in each town, and Summary for the State. From this document (and its value would be greatly enhanced by a full Index,) a clear insight can be obtained into the actual working and results of the common schools of the State, the district organization of the schools, the condition of the school-houses, the qualification of teachers, the text books and apparatus, public and parental interest, and the agencies at work in supervision and improvement. The Report of the Commissioner for Hillsborough county, (Mr. Tenney,) from which extracts are already given, is a good specimen of the plain and practical way in which the subjects are handled, and reflects both the dark and bright side of the system. The report of the town superintending school committee, in connection with the statistics from the same town, discloses the excellencies and defects of the schools with an accuracy and fullness, which could only be obtained by actual inspection. We make the following extracts from the proceedings of the Board and the Report of the Secretary.

TEACHERS' INSTITUTES. That the number of instructors at each Institute be reduced so as to give less expense, more time, more unity, more efficiency; that the sessions be made, as nearly as possible, model schools; that the instructions be chiefly elementary and practical; that, as much as possible, the members be submitted to examination and drill, and required to aid in the work; that the best teachers of our own State, so far as possible, be drawn out into the service of managing and teaching departments in the Institutes; that the sessions be held with special reference to the demands of common schools in respect to time and mode of operation.

No State in the Union makes such liberal provision for Teachers' Institutes. In 1855, the sum of $5,250 was raised by tax by the several towns for this object, and twenty-two Institutes were held with an aggregate attendance of 2,353 teachers. The Secretary remarks:

The testimony of intelligent and observing School Committees everywhere is that the most constant and faithful attendants upon the Institutes are, other things being equal, the most devoted and best qualified teachers. The demand for *Institute* teachers is increasing; and, as they are the best, of course, they command the best wages. Very soon, none will be employed except such as have shown sufficient interest in their work to make the small sacrifice of time and money necessary to secure these cheap advantages—the best the State affords.

No claim is made that these Institutes can make good teachers out of the ignorant, the weak-minded, the perverse, or the vicious. Previous knowledge and discipline, proper strength of mind, good sense, and native aptness and love for the duties of teaching and directing other minds, must be had or they will not be attained here. Their object is to further develop, direct and strengthen the native

and acquired abilities; to review rapidly, the subjects commonly taught; to open the avenues to more attainment; to suggest improvements in the art; to awaken new zeal in the work; to inspire to higher endeavors. Hence, their benefit is not confined to the inexperienced teacher; but they are useful to all who are not too old or too wise in their own conceits to learn. Their didactics and drill are like a brief Normal School; their discussions and criticisms like those of an association of men of any vocation; their lectures inspiring like those of political, literary, or other conventions. American in their origin, they are adapted to American mind, and may be discontinued when the genius of our people ceases to demand associate effort, with all its quickening and powerful influences; when political caucuses, trade associations, and literary, social, charitable and religious conventions are needed no more.

CIRCUITS OF COUNTY COMMISSIONER. That the circuits commence as early as practicable after the opening of the winter schools; that the schools visited be at the option of School Committees; that measures be taken, either in visiting the schools or in School Conventions, to meet the parents together with the teachers and pupils; that the evening exercises, while they may be varied according to circumstances, should have special reference to the local condition of education in each town, and consist largely of free, practical discussions; that more time be spent in each place, if practicable, than the law requires; and that the results of the visits be made public through the county papers.

SCHOOL-HOUSES. That while we are pleased to see, in many places, evidence of increasing intelligence, humanity and liberality, in the proper construction, ventilation, warming and furnishing of school-houses, there be more earnest heed to these matters so vital to public good; and that attention be given to the reducing the number of school districts so as to afford larger means for securing these.

SCHOOL MORALS. It is recommended to parents, teachers and committees more vigilance in eradicating the ruinous habits of whispering and other communications among pupils; the use of obscene and profane language, and the vulgar rudeness of manners so common in school intercourse, often rendering the public school so objectionable to all discreet parents; also, the great evil of irregular attendance and tardiness, so destructive to good order, and detrimental to improvement.

SCHOOL INSTRUCTION. It is recommended to teachers to pay more attention to the *elements* of science; more thoroughness in drilling their pupils; more endeavors to ascertain and use the most approved modes of teaching; and more system in the communication of knowledge, accompanied with abundant and varied practical examples, drawn not from text-books alone, but from daily observation and experience.

SUBJECTS OF INSTRUCTION. 1. Moral Principles, Duties and Practices. 2. Physical Laws and Habits. 3. History and Geography of our own Country, and especially of our own State. 4. The Constitutions, Principles and Fundamental Laws of our own National and State Governments. 5. The proper speaking and writing of the English Language. 6. Practical Business Modes and Forms. 7. The Elements of Drawing. 8. The Elements of Natural Science, as seen and illustrated in the ordinary scenes and operations of nature around us. 9. Facts and Reasons about Common Things,—all to be taught orally or from text-books, in classes or general exercises, as the condition and wants of the school may seem to demand.

STATE NORMAL SCHOOL. A plan for a State Normal School was approved and urged on the attention of the Legislature.

STATE TEACHERS' ASSOCIATION. In June, 1854, a State Association of Teachers was formed at Concord, and duly incorporated by the legislature of that year. It has since held regular meetings, twice each year, with much interest and profit to its members and the friends of education who have been present. Many of the most eminent and permanent teachers of the State are its members, while it is open to all actual teachers of every class. It is hoped that it will soon embrace every live teacher of the State as an active member. It can not fail, if properly sustained, to be productive of the most happy results to the teachers themselves, and to the cause of learning in the State.

If branch associations could be organized in every county in the State, and in every town where it is practicable, embracing not only the teachers, but school committees, and other active friends of education, the results would be most happy.

SCHOOL JOURNAL. It does seem as though interests so universal and important should have an organ through which their special agents and most active friends

could find ready communication. It might be under the joint control of the Board of Education and the State Teachers' Association.

SCHOOL LIBRARIES. The benefits of a well-selected school library in every school-room in the State surpass computation. The good books in them would be useful for reference not only during the sessions of school, but would keep many from idleness and vice, from sorrow and despair, when no other but these silent and impressive monitors and teachers were present. They would admonish and teach our youth and bless our homes the whole year. They would banish from our State the hurtful literature so cheaply and abundantly furnished, with tempting pictures, at every corner. If our youth are taught to read, they will read something. If parents do not see that reading, in cheap form, is thrown in their way, bad men will. These good books would form a correct taste for reading which could not afterwards well be perverted, leading to habits of inquiry which must result in better citizenship, greater wealth, and a happier state of society. The quickening, conservative and elevating influence of such a library in every town can require no argument. I consider such a library next in importance only to the good teacher; and the claim of the people upon the State for aid in establishing and sustaining such a library is based upon the same grounds and encouraged by the same wise policy.

SCHOOL REGISTERS AND BLANKS. Under a vote of the Board the Secretary prepared a Register to be kept by the Teacher, together with a set of Blanks for facilitating the operations of the County Commissioners, and School Committees.

SUMMARY OF SCHOOL RETURNS.	
Number of towns in the State,	228
Number of towns reported,	226
Number of school districts reported,	2276
Number of different scholars over four years of age attending public schools not less than two weeks,	85,503
Number of different scholars attending summer schools,	58,203
Number of different scholars attending winter schools,	67,103
Average number of different scholars attending school each term,	62,653
Average attendance in summer,	48,712
Average attendance in winter,	55,970
Average attendance during the year,	52,341
Per centage attendance in summer,	.83
Per centage attendance in winter,	.82
Per centage attendance during the year,	.825
Ratio of average attendance to the whole number of different scholars reported,	.61
Children between four and fourteen years not attending school,	2,707
Persons between fourteen and twenty-one who can neither read or write,	1,008
Average length of summer schools in weeks,	9.77
Average length of winter schools in weeks,	10.63
Average length of schools for the year,	20.40
Average wages of male teachers per month, exclusive of board,	$18.45
Average wages of female teachers per month, exclusive of board,	$8.42
Number of male teachers employed during the year,	1,077
Number of female teachers employed during the year,	3,042
Whole number of teachers employed during the year,	4,119
Teachers reported to have attended Teachers' Institutes,	1,591
Teachers reported as residents of the town in which they teach,	2,020
School-houses built during the year,	49
Incorporated academies and private schools reported,	89
Amount paid for building and repairing school-houses,	$60,337.52
Amount paid for tuition in academies and private schools,	$29,670.96
Amount contributed in board, fuel, &c., for public schools,	$14,268.81
Amount of income from local funds for public schools,	$8,814.56
Amount of income from surplus revenue for public schools,	$1,315.32
Amount of income from railroad tax for public schools,	$3,894.48
Amount of income from bank tax or literary fund,	$18,138.53
Amount raised by taxes for support of schools,	$212,346.17
Amount raised for Teachers' Institutes in 1855–6,	$5,250.00
Amount required to be raised by taxes for schools in 1856–7,	$200,000.00
Amount required to be raised for Teachers' Institutes in 1856–7,	6,000.00
Average amount expended for each scholar,	$2.57
Whole amount expended for education in the State, not including the expenses for building and repairing school-houses, tuition in private schools, academies, colleges, school committees' services, Teachers' Institutes, and of the Board of Education,	$258,777.76

NEW JERSEY.

Annual Report of the State Superintendent [John H. Phillips,] *of Public Schools of New Jersey, for* 1855. *Submitted January* 7, 1856. 181 pages.

This document embraces the Report of the Superintendent, Tabular Abstracts of the Returns made by Township Committees, Extracts from the Reports of Town Superintendents, and Reports of Teachers' Institutes.

STATISTICS. The Superintendent presents the following statistical summary of the operation of the system for 1855.

Population in 1855,	000,000
Whole number of towns and cities,	193
Number which have made reports,	167
Number of school districts,	1,429
Number of children between the ages of five and eighteen years,	173,014
Number of children who attended school through the year,	29,110
Number of children who attended nine and less than twelve months,	27,655
Number of children who have attended six and less than nine months,	27,205
Number of children who have attended three and less than six months,	29,307
Number of children over eighteen years of age who attended school,	1,646
Whole number of children who attended public schools,	114,923
Amount of money raised by tax for support of schools,	$258,158.30
Amount of money raised by tax for building school-houses,	90,439.67
Amount of State appropriation,	$80,000.00
Amount from other sources,	46,570.67
Total amount expended on public schools in 1855,	$475,168.64
Increase on amount expended in 1854,	86,596.78
Number of teachers—males, 1,111; females, 719; total,	1,830
Salary of teachers per year—male,	$355.00
Salary of teachers per year—females,	216.00

PROGRESS OF PUBLIC SCHOOLS. Never was there a time when so many capable and faithful teachers were in the field; never a time when the people appreciated so highly the importance and value of general education; never a time when they were so well prepared for liberal and enlightened legislative action on the subject.

STATE NORMAL SCHOOL. At the last session of the legislature, an act was passed "establishing a State Normal School for the training and education of teachers," a board of trustees was appointed to manage the affairs of the institution, and the sum of ten thousand dollars annually, for five years, was appropriated to its support.

By that act, no provision was made for the purchase of a site for the institution, or the erection of the buildings necessary for the accommodation of the school, but, as if to test the value of such legislation by a direct appeal to the people in their estimate of its importance to promote the cause of common school education, left it for them to supply, by their own voluntary action, the means for which no provision had been made by the legislature.

TEACHERS' INSTITUTES. Fourteen institutes were held during the year, with an aggregate attendance of 565 teachers. Visible improvement is observed in the teachers who have attended them, and there is no doubt, the instruction there received, has served to diffuse among them, a high degree of mental activity and professional feeling, and what is of equal importance, a spirit of improvement, as well as more enlarged and liberal views, as to the value and importance of general education, have, through this medium, been diffused among the people, that cannot fail to be productive of highly favorable results, in promoting the cause of education.

WEBSTER'S UNABRIDGED DICTIONARY. The liberality of the legislature in furnishing a copy for each school is highly approved, and there is no doubt it will benefit the schools.

REPORTS OF TOWN SUPERINTENDENTS. These reports speak favorably of the progress of the system, but abound in the usual complaints of poor houses, non and irregular attendance of pupils, &c. &c.

NEW YORK.

Annual Report of Superintendent of Public Instruction, [Victor M. Rice,] *Dec* 31, 1855. 159 pages.

This document discusses ably and practically the working of the system rather than the condition of the schools themselves, except as the latter may be inferred from the former.

STATISTICS FOR 1854–55. The school statistics are on a scale of magnitude which make it difficult to grapple with them understandingly.

Population of the State in 1855,	3,470,059
Valuation of real and personal estate,	$1,361,326,946.00
Number of children between four and twenty-one,	1,224,127
Number of school districts,	11,748
Number of school-houses,	11,028
Number of children returned as taught in public schools,	900,000
Number of children returned as taught in private schools,	53,964
Number of children returned as taught in thirty-eight "colored schools,"	5,243
Number of children returned as taught in academies, colleges, &c.,	38,784
Number of pupils who attended public schools the entire year,	13,925
Number of pupils who attended public schools 10 months,	44,618
Number of pupils who attended public schools between 8 and 10 months,	66,246
Number of pupils who attended public schools between 6 and 8 months,	131,116
Number of pupils who attended public schools between 4 and 6 months,	180,956
Number of pupils who attended public schools between 2 and 4 months,	219,151
Number of pupils who attended public schools less than 2 months,	210,500
Number of volumes in district libraries,	1,505,370
Amount raised and appropriated by State,	$800,000.00
Amount of income from common school funds,	$145,000.00
Amount of income from United States deposit funds,	$165,000.00
Aggregate amount of money distributed by State,	$1,113,000.00
Amount raised by tax for teachers' wages in city, village, and union free schools,	$691,687.94
Amount raised by rate bills,	$382,359,08
Amount raised by tax for exemptions from rate bills,	$41,948.16
Amount raised by tax for teachers' wages in colored schools,	$2,393.25
Amount raised by tax for school-houses, sites, repairs, &c., fuel, &c.,	110,802 45
Whole number of different teachers employed,	18,731

INACCURACY OF SCHOOL RETURNS. The experience of the past year has produced the conviction that the abstracts of the county clerks are so unreliable, as to be worthless without corrections, which require about the same time and labor as would be necessary to make them originally from the returns of the town superintendents.

THE STATE SCHOOL TAX. The policy of devoting a portion of the public means to secure the universal education of the people has long since ceased to be debatable in this State. Upon the lowest considerations of sheer economy the state can not afford to have its children grow up in ignorance. Their effectiveness as producers of wealth, as workers in any department of industry depends principally upon their intelligence. The comparatively high degree of intelligence existing among our people is the circumstance which enables our artisans and manufacturers to maintain high wages and yet produce at a cheaper cost than the laborers of Europe, whose remuneration only suffices for a pinched and scanty subsistence—the defect of special training being more than supplied by general education. It is very obvious that what is the private interest of each individual is also the general interest of the community. It is less obvious, but no less true that no man can afford to have his neighbor ignorant and poor any more than he can afford to have him infectiously diseased or criminally vicious. The increase of private wealth is only consistent with that of the general stock, from which, through whatsoever transformation and exchanges, it must be derived. We are thus brought to the proposition recognized in our practice, that each individual is interested in the effectiveness of the industry of all his fellow citizens, and consequently in their education, in proportion to his stake in the aggregate wealth.

The central idea of republican government is that it subordinates property to mankind, protecting and administering material capital for the sake and in the interest of man, not managing men for the sake of capital. The state fails to fulfill its obligations to the child, when it permits the parent, for any selfish or merely

personal object, to rob him of the years which nature has appointed for bodily and spiritual development, for the gathering and not for the expending of mental and physical strength. It fails equally, when it neglects to furnish the means and appliances without which the child's own property, in the time of his adolescence, would be rescued in vain from confiscation to the immediate profit of his parent, and lapse unfruitful of any acquisition for future benefit to himself, to the state he is to serve in his maturity, and the children with whom, he in his turn, is to replenish its forces.

The act of 1851, authorizing a tax of $800,000 for the support of schools, embodied two propositions:

1st. That the money should be raised by the contributions of every citizen in proportion to his property and irrespective of his location.

2d. That it should be distributed and expended in the various districts of the state, in proportion to the result to be accomplished therein, that is, to the number of children of the age deemed suitable for primary instruction.

It surely could not be deemed advisable to return to each county the amount raised by its own taxation to be devoted exclusively to its own schools. This, instead of aiding, as does the present plan, to make us a homogeneous people, by increasing the resources of the sparsely populated regions, where education is comparatively expensive, the necessity for it greatest, and the private means of the inhabitants the least, would tend to exaggerate the disparity already sufficiently striking between the highly civilized and the comparatively rude districts. It is the interest of the State that education should be most facilitated in those districts where it is of most difficult attainment, those in which a scattered population collects a few children in a school-house, remote from the habitations of most of them, to be reached by clambering over mountains and skirting swamps, through the snow-encumbered paths of winter. In such districts the lands are of small value, and the taxable property of little amount. The toil of earning a subsistence absorbs more of the time and thought, than in the more cultivated and settled districts, and the inclination to devote their hard-earned means to the instruction of the rising generation, dwindles into even smaller proportions than the ability. It is precisely in such regions that the inclination must be stimulated by pecuniary encouragement, or we must be content to see a race grow up inferior in knowledge, in morals, and value as productive agents to their fellow citizens, and distinctions of intelligence and character established within our State.

The tax, being founded upon a recognized necessity, should vary with the needs it is intended to supply. These are directly appreciable by an enumeration of the children to be instructed, and the ability to pay by the assessed valuation of the property. Any fixed sum is adapted to the circumstances only of a stationary State. Former superintendents have recommended that a tax of one mill upon the dollar should be levied instead of the present amount. A tax of three-quarters of a mill would raise upon the present valuation, a little over one million of dollars, the excess above the present tax being something less than half the sum for which provision was made by rate bills during the past year, and which was raised to supply those forbidding attendants upon rate bills, deficiencies caused by inability to collect them and exemptions which involve a painful conflict between the honest pride of the indigent parent and the needs of his family for physical comfort made more humiliating by the narrow spirit, in which exemptions are often refused.

Union Free Schools. It is believed that the policy of conferring upon the inhabitants of school districts the power to devote their own resources to the support of entirely free schools—of encouraging the consolidation of contiguous districts, and thereby promoting the economy and efficiency of the schools—of permitting the union of an academical with the primary departments, and thereby facilitating the classification of pupils and preventing those who are able to pay for their education in the more advanced studies from being withdrawn from the public schools to private establishments—is a policy so eminently wise and beneficial, that the legislature will not permit it to fail for want of the few amendments necessary to render the interpretation of the statute clear, and its administration easy and confident.

School Laws should be Simple. It should never be forgotten that its administration is devolved upon persons destitute, for the most part, of legal knowledge; bound under penalty to accept and serve in their offices without remuneration; remote, in many cases, from opportunities for legal advice, or the consulation of the statutes, and unprovided with the means of paying for legal assistance. Public agents thus circumstanced should at least be furnished with the most perspicuous and copious statutory directions that can be framed with the lights derived from a knowledge of the questions that are found in actual experience to prove most perplexing. The legislature should not content itself with furnishing

a code which courts and lawyers may be able to construe intelligibly; but should make it level to the comprehension of the wayfaring man, by the actual enumeration and definition of all those secondary and consequential powers and duties which might, in ordinary cases, be safely left to the influence of the enlightened reader. The question is not, can the statute be understood, but is it understood in point of fact, by those who are obliged to act upon their own understanding of its provisions.

EDUCATION OF TEACHERS. The agencies now in operation for his education are the State Normal School, teachers' departments in the academies, and teachers' institutes.

STATE NORMAL SCHOOL. In a state like New York, comprising an extended territory, and a population of nearly three and a half millions, including above one million of children of proper school age, more than nine hundred thousand of whom actually attend the schools, it could not have been rationally expected that one such institution could supply the demand for teachers. Still, it is but just to say, that it has been, and is fulfilling a mission of usefulness, though perhaps not always appreciated, in every county and town in the State.

It has created among the people a more exalted ideal of the proper qualifications of the teacher. Its pupils have gone forth from its halls, in the full consciousness of their responsible duties, and with a comparatively clear understanding of the means requisite to their faithful performance. They have co-operated with others who are eminent as educators in establishing teachers' associations and institutes, by which their own knowledge and skill have been diffused generally among the members of their profession. Some of them are now acting as school officers, and their influence in encouraging the establishment of a higher and better grade of common schools, is a matter of general notoriety among those who have watched with solicitude the educational interests of this State.

Under authority of an act of the legislature, passed March 30, 1849, and confirmed by subsequent acts of appropriation, academies have been designated biennially by the Board of Regents, for the instruction of classes in the theory and practice of teaching. It is known that by many of these institutions, the graduates of the Normal School are employed to teach these classes, and it is believed that they are generally better qualified for the business than those who have been educated under the system of instruction generally adopted and pursued in the colleges. Whether in the academies, in the common schools, in teachers' institutes or in the performance of their duties as school officers, they become, emphatically, the teachers of teachers, to whom they impart a knowledge of the discipline and instruction which they themselves acquire at the parent school. Its influence has thus been and will continue to be extended to a great multitude of children and youth, who will seek knowledge with method and earnestness of purpose, and whose well-ordered lives will be the highest approval of a policy, having in view the preparation of the teacher for his trust.

This institution has been in operation eleven years, in which time it has instructed, for a longer or shorter period, 4,795 pupils, of whom 859 have completed the full course of studies and practice prescribed, and received diplomas. There is a very pressing demand for teachers from it, so much so that a large number of the young men who were under its tuition at the commencement of the present term have been induced to leave for the purpose of teaching during the winter. Some of these young men will probably return, but others, with their present acquirements, will find continuous employment at a fair compensation.

TWO NORMAL SCHOOLS NEEDED. It is urged that one such institution could not have been expected to meet the demand for teachers in a State supporting more than twelve thousand schools; that if there were doubts twelve years since as to the benefits of instruction in didactics, those doubts do not now exist; that the reasons for the support of one may be urged with equal force in favor of others; that there are hundreds of worthy and competent young men and women who would gladly participate in the privileges of the existing school, were they able to bear the necessary expenses, and the parents of others, in remote parts of the State, object to their attending school so far from their homes; that the number in attendance at the Normal School is now as large as its facilities for instruction will warrant.

TEACHERS' DEPARTMENTS IN ACADEMIES. From 1850 to 1855, a "Teachers' Class" has been taught in a certain number of academies designated by the Regents, for at least one-third of each academic year, or for four months. The whole number taught in these classes for six years is 8,944, at an expense of $90,920, averaging over ten dollars each for one term of instruction of about four-

teen weeks. By an act passed April 13, 1855, the legislature appropriated $18,000 out of the income of the United States' Deposit and Literature Funds, not otherwise appropriated, "for the instruction of common school teachers in academies designated by the Board of Regents, in the science of common school teaching." The Regents have designated 113 academies to instruct classes of not more than twenty pupils in each academy, for which an allowance of $10 is made for each scholar.

TEACHERS' INSTITUTES. By an act of the legislature, passed November 13, 1847, upon the same day that the office of county superintendent was abolished, provision was made to encourage the establishment of teachers' institutes in the several counties in this State.

Prior to that period institutes had been supported, in many of the counties, by voluntary efforts of teachers, encouraged and stimulated by the persuasion and controlling influence of the county superintendents. These officers found, upon an examination of the schools, that their first and greatest need was a supply of competent instructors, and they made this fact known to the people, and the utter folly of employing those who were not fitted by education, or habit, or disposition, for the task. Under these circumstances, it was imperative for those wishing employment, to qualify themselves to meet the demands of the profession. The cheapest and most practical mode of doing so, was to associate themselves in institutes and receive practical instruction in the branches they were to teach. It was not uncommon to see one hundred, and, in some of the larger counties, two hundred teachers and others preparing for the profession, in attendance on these institutes; and, although their sessions were short, *necessity* urged each one to make the greatest possible efforts; and no sooner did their instructors present the shadow of a new principle in science, or in the art of teaching and governing a school, than the substance was sought with an alacrity and energy of purpose indicating that the mind was fully aroused, and every object of study illuminated by the light of its inspiration.

The skill and experience of the best educators in the country were thus diffused among the many who went forth from the institutes to their respective schools, cherishing a higher and nobler ideal of their chosen vocation, and with the consciousness that only constant self-improvement, increased watchfulness, and untiring devotion to it, would answer its high demands. A fourth, at least, of all the teachers in the schools met together in their respective counties annually, reviewed their studies, exhibited and compared their several modes of governing and teaching the children and youth. These results were reported to successive legislatures, by the superintendents, as evincing a heart-felt and growing interest in the cause of popular education. That was a hopeful and promising period in the history of public instruction in this State. The operation of our school system drew from the Hon. Horace Mann, then Secretary of the Board of Education of Massachusetts, the following tribute of praise: "The great State of New York, by means of her county superintendents, State Normal School and otherwise, is carrying forward the work of public education more rapidly than any other State in the Union, or any other country in the world." But when the law abolishing county supervision was passed, these temporary Normal Schools were neglected, and the retrograde results of that neglect have been painfully felt by those who look upon our common schools as the pride and hope of republican institutions.

Institutes have been supported in some of the larger cities on Saturday forenoons for a number of years, and are considered by those whose duty it is to supervise and teach them, as an essential means for teachers' improvement.

In August, 1854, the State Teachers' Association, conscious of the importance of renewed and vigorous efforts to give more vitality and a higher toned influence to the schools, appointed one of their number, a gentleman of experience and ability as a practical teacher, to co-operate with this department in its purpose to resuscitate the institutes in the several counties, and to encourage teachers' associations and school celebrations.

I have pleasure in reporting, that during 1854-5, there were organized and successfully conducted thirty-six institutes in the counties. That over two thousand teachers, and those preparing to teach, were instructed in them in the theory and practice of teaching. The expense to the State has been less than one dollar to each person thus instructed.

In the opinion of the undersigned, the practical instruction imparted in these institutes, is the cheapest, and, for the time devoted, the most efficient, of any encouraged by the State, and it is recommended that the appropiation be increased to $150 to each county in which an institute shall be established, and sustained according to the requirements of the act of 1847. It is believed that this is due to

the rural districts and to the villages whose schools are organized under the provisions of the general school law.

CERTIFICATE OF ATTENDANCE AT INSTITUTES. While the State should offer liberal inducements for persons to enter the profession, she has a right to demand as security for the faithful performance of the duties it involves, a continued effort for self-improvement, constant advance in knowledge and skill, and more elevated endowments that shall keep pace with the progress of the age. The propriety of this is recognized in the fact that teachers, generally, are supposed to bear annual examination. The tendency of daily association with those of inferior acquirements, is to remove the necessity which urges to effort; and as there is no point where the mind is at rest, it must retrograde under the continued influence of such association. Hence the teacher, whose attainments will answer the present demands of his pupils, is always *liable* to relax his pursuit of knowledge unless there exists some stimulating power to prompt him to application.

This power is pre-eminent in well-ordered institutes, for the teachers of superior qualifications are at once a stimulus and an example to those of less acquirements and skill, while among themselves the necessity of efforts for a higher standard of excellence seems imperative. Inducements, therefore, which would encourage and compass a general attendance of all the teachers of a county or even a large majority of them, are needed.

Authority of law might be given to the chairman of the committee appointed to manage and organize the institute, to associate with himself two others, who should, together, constitute a board, with authority to examine teachers at the institute and to grant them certificates of their comparative qualification.

There should be at least three grades of certificates, either of which might be considered as sufficient to authorize the employment of the holder in any common school in the county for one year from its date. Trustees would then have data to guide them in the employment of teachers, and an additional stimulant would be offered to teachers to neglect no opportunity for improvement, whether in institutes or elsewhere, by which they might hope to acquire a certificate of higher grade and a position more honorable and probably more lucrative. Under these circumstances, those who might receive a certificate of the highest grade, would be continually urged to action and devotion to their duties by the necessity of sustaining themselves at their re-examination at the close of the year, or the meeting of the institute. I have thought that school officers generally should have authority to grant certificates, indicating the grade of acquirement and qualification to which, in their opinion, the teacher is entitled.

EVIL OF CONSTANT CHANGE OF TEACHERS. There are two teachers employed in the same school, and at different periods of the same year in many of the districts. One no sooner becomes acquainted with the powers, dispositions, habits and acquirements of his pupils, than his term closes, and the trustees are prepared to employ somebody else, who must gain the same knowledge before he can effectually instruct them. As soon as he has secured, for those under his charge, proper classification, according to age and acquirements, and they are fully prepared and anxious to progress in their studies, his term of employment closes, and another is engaged to go through with the same preparation. The number of years consumed in this continued routine of repetition, which should add vastly to the power and acquirements of the youth under instruction, are too precious to be passed without notice.

DIMINUTION OF THE SUPPLY OF GOOD TEACHERS. There has been a diminution of the supply of teachers in this State, in consequence of inducements offered in other localities. Many are now teaching in Pennsylvania. Her system of county supervision is awakening among the masses of her people a lively interest in her common schools, and should she hold fast in that which is good, and not follow the example of New York in abolishing the office of county superintendents, her almost limitless wealth will not add so much to her future power and renown, as her common schools. The West, too, which offers so many inducements to the energetic young men and women to migrate thither, is drawing sensibly upon the supply of teachers; and so long, too, as other vocations promise greater wealth, and superior position and influence in society, so long will the proper education of the children in this State require of those to whose hands is intrusted the duty of legislation, the establishment and liberal support of temporary and permanent institutions for the education of teachers.

AID TO THE NEW YORK TEACHER. By virtue of an act of appropriation made by the legislature at its last session, the undersigned subscribed for copies of the *New York Teacher*, to be sent to each town and city superintendent in the State. All communications which this department desires from time to time to

address to them generally, or through them to district officers, are gratuitously inserted. In no other way could this be done so readily and economically.

It is under the control of a board of editors, composed of highly qualified and experienced teachers, appointed by the State Association, and is peculiarly valuable to town superintendents; for it supplies them with important information concerning the construction of school-houses, the duties and proper qualification of teachers, and the most approved modes of instructing—thus adding to their capacity for supervision.

COLLEGES AND ACADEMIES SHOULD BE CONNECTED DIRECTLY WITH COMMON SCHOOLS. In his last annual report, the Superintendent presented his views in regard to the connection which ought to exist between the primary schools and the higher seminaries, as alike instruments in one comprehensive system of public instruction.

The academies being directly and regularly aided by a permanent grant of public money from the Literature Fund, the duty of the undersigned seemed to require that he should invoke the attention of the legislature to the framing of some plan by which the services to be rendered by them in return, should be fixed and determinate, and should, moreover, directly subserve the general benefit, instead of being limited to the children of those who have the pecuniary ability to support them at the academies. With this view, he again commended to the consideration of the legislature, the proposition of a former Superintendent of common schools, that the academies should be required to furnish free tuition to a number of pupils, proportionate to the public money received by each. It was also proposed that the free scholarships in the academies should be made prizes for distinguished ability and acquirements in the pupils of the common schools.

This plan contemplated the putting of the colleges, so far as they may receive public money, upon the same footing; that is to say, subjecting them to the obligation of expending it in the maintenance of free scholarships to be granted to the successful competitors in the free departments of the academies.

Other methods were suggested as alternatives, which would secure the same object—that of rendering the colleges and academies, to the extent that they may be recipients of public money, *common* colleges and *common* academies, in the same sense as schools are common. Among these were the obligatory investment of the money granted, in the support of professorships of didactics, for instruction in the theory and practice of teaching; in additions to the libraries of the institutions receiving grants, upon the condition that the libraries shall be open, under proper regulations, for the use of every citizen; in the maintenance of courses of public lectures upon such of the physical sciences as tend most immediately to the increase of production, such as agricultural chemistry in the rural districts, or general chemistry and physics in the large towns and cities.

The superintendent retains the convictions which prompted the suggestions of his former report. He regards it as highly desirable to the prosperity of the higher institutions that they should be plainly seen to co-operate directly in elevating the character of the primary schools, and in enlarging the range of that instruction which they offer to all the children of the State. It can hardly be hoped that this will be so generally seen, as to secure the same hearty, popular support for pecuniary aid to the higher seminaries as now buttresses the common schools, until it shall be apparent that the State, by its contributions, fosters and diffuses practical science, and not mere erudition. The common schools are the nurseries of the more advanced institutions, and the latter must thrive in proportion to the industry of their friends in cultivating and multiplying thrifty shoots in the former, in transplanting them by easy gradations to the seats of maturer learning, and making the latter in a wider sense than now, public institutions, instead of the dependents of limited classes.

INSTITUTION FOR THE BLIND AT NEW YORK. The number of pupils in the Institution for the Blind is one hundred and sixty, of whom one hundred and twenty-four are beneficiaries of the State. The amount expended during the past year for their support and tuition was $19,531.59.

The pupils of this institution are instructed in the branches usually taught in common schools, and in some of the higher branches of science. They are likewise taught to manufacture baskets, mats, mattresses, brushes, carpeting and band-boxes. The females are instructed in plain sewing, various kinds of fancy knitting and bead-work. The study and practice of music constitutes an important feature in the course.

Many of the graduates have found situations as organists, choristers and professors of music in different sections of the State, some are employed as teachers in similar institutions in other States, and a number are retained in the institution and have proved most successful teachers. It is a part of the policy of its managers to educate their own teachers.

INSTITUTION FOR THE DEAF AND DUMB. The number now in the institution is two hundred and ninety. The amount paid from the treasury for the tuition and board of the beneficiaries during the last fiscal year, was $30,672.06.

The several branches of science and of the industrial arts continue to be taught with success. Cabinet-making, shoe-making, book-binding, and, in its season, gardening, are all prosecuted. All the pupils are instructed in drawing, thus affording them an opportunity to develop whatever talent in the art they may possess; and instruction in the art of engraving on wood is given to a select few, who manifest a capacity and taste for it. The young women are taught plain sewing, dress-making, tailoring, the folding and stitching of books, and the lighter household duties.

The experiment of organizing a class in the higher branches of science, which was instituted three years since, has proved entirely successful. The course of instruction for this class embraces three years, and the first class was graduated at the close of the academic year last past. Their attainments, as shown by their examination, and set forth in the report of the examining committee, were superior to those ever known to be made by a class of deaf-mutes. The restoration of the deaf and dumb to usefulness, and in a great degree to the society and sympathies of their fellow beings will be hailed as a bright feature in the march of Christian civilization.

INSTRUCTION AND CARE OF THE INDIANS. Among the Senecas, fourteen schools have been in more or less successful operation during a part of the year. Of these, five are on the Allegany reservation, four of which are conducted on the district school plan, one is a girl's boarding school, and all are sustained by the American Board of Commissioners for Foreign Missions. Seven are on the Cattaraugus reservation, and all are conducted on the district school system, one of which is supported by the State, and six by the American Board. Of these, three have been in operation only about half of the year. There are also two schools on the Tonawanda reservation, one of which has been taught by a young Indian lady, educated at the Normal school, who has proved herself to be a competent and successful teacher. Three Indian youth have been employed as teachers on the Cattaraugus reservation, two of whom were beneficiaries of the State at the Normal school, and the other was educated at the Clover Street Seminary. All are reported to have succeeded well in teaching.

On the Tuscarora reservation, there are two schools; one a girls' boarding school, supported by the American Board, the other a common school supported by the Indians.

On the Onondaga reservation, there is one school supported by the State. Those having the supervision of it report the whole attendance to have been forty-five, of whom thirty-four are under twelve years of age. The average attendance is estimated at about twenty, which is greater than that of former years, and is said to have been secured by the bestowment of food and clothing as a reward for punctual attendance.

On the Oneida reservation, there are two schools, both supported by the State.

Under the appropriation of 1854, five Seneca youth—four girls and one boy—were selected and placed in farmers' families. One of the girls after five or six months returned home, and another was appointed in her place, who also left soon after. Of the other three, one has returned in consequence of the death of her father; the remaining two are doing well in the places provided for them. The boy is still in his place. All have had the reputation of good scholarship and good behavior.

An act was passed by the legislature on the 10th of April, 1855, incorporating the Thomas Asylum for orphan and destitute Indian children, to be located on the Cattaraugus reservation, and appropriating two thousand dollars for the erection of buildings.

Since the Seneca nation began to adopt the habits of civilized life, its population has increased at least twenty per cent., and a similar increase is noticeable among other tribes in proportion to their advancement, while those of the aborigines who retain their savage customs, receiving from the whites only their vices, have been gradually wasting away, and many have become extinct.

CITY SCHOOLS. It is their mission to give a practical education alike to the rich and the poor; and they are fulfilling it in a manner creditable to their particular localities and to the State. Thousands of parents have been induced to remove from the rural districts for the purpose of educating their children in these schools. With one or two exceptions, they are under a complete and thorough supervision, which points out the most approved modes of school architecture, secures competent teachers, and incorporates into their plans of instruction every improvement of the day.

SUPERVISION OF SCHOOLS. At present the school officers consist of trustees, town superintendents, and a Department of Public Instruction. If the experience of the Department for fifteen years, and the testimony of every officer who has presided over it, supported by the opinion of every friend of popular education who has spoken upon the subject are worth anything, the work of the school system is performed in an unsatisfactory manner. The system lacks strength and compactness; its joints are so loose as scarcely to hold its parts together; its movements are irregular, and its results uncertain.

SUPERVISION OF CANAL SYSTEM AND SCHOOL SYSTEM COMPARED. To manage the canals there are three Canal Commissioners, with salaries of $1,700 a year; a Canal Auditor, at $2,500 a year, with clerks, at $5,300; a Canal Board composed of nine State officers, whose duties connected with the board occupy much of their time; five Commissioners of the Canal Fund, to keep and manage its moneys; a corps of engineers, with salaries varying from $2,500 down to $500; a troop of collectors, superintendents, inspectors, weighers and lock tenders; the whole forming a very complicated and expensive system, confined, in its operation, to but a fractional portion of the State. Compare the School Department with its Superintendent, deputy and two clerks, with this formidable array of receiving and disbursing officers. I do not include the town superintendents, because the time and attention devoted by them is as insignificant, compared with the wants of the schools, as their reward is stinted.

The schools are as much more important than the canals, as mind is more important than matter. The schools are the nurseries of mind. The State would exist and grow in material and intellectual strength if the canals were filled up. But abolish the schools, and it would sink into barbarism. The schools inform, invigorate, and elevate the masses; the canals are the muddy avenues of trade. The general intelligence of which we boast, the mental superiority of our people, their inventive powers, and mechanical skill, are the fruits of the schools. Our common schools lie at the foundation of our superiority and greatness as a State. Why, then, should more care and circumspection be bestowed upon a monetary interest, which, if abandoned to-day, private enterprise and capital would carry on with far more vigor and economy to-morrow, than upon a system which is more important in a pecuniary point of view, and which, in a moral, intellectual, and even political view, has a value beyond arithmetical calculation.

COUNTY SUPERVISION. County supervision was recommended by Hon. John C. Spencer, in 1841, and instituted under his administration. In 1843, the Hon. Samuel Young, who came into office strongly prejudiced against the plan, after a year's experience of its results reported to the legislature that "in every county of the State where the Deputy Superintendent has assiduously fulfilled his mission, an improvement in the condition of schools is manifest." In his next report he emphatically expresses his conviction of the importance and utility of county supervision. His successor, the Hon. N. S. Benton, in 1846, bore his testimony of the excellence and usefulness of the plan. The legislature of 1847, in an unpropitious hour, upon the memorial of some half dozen boards of supervisors, abolished the office. The Hon. Christopher Morgan, after one year's experience in the office of Superintendent of common schools, without the aid of county supervision, in his report of January, 1849, says "The act abolishing the office of county Superintendent was, in the opinion of the undersigned, a retrograde movement. If those officers were not in every instance competent and faithful to their trust the fault was in the appointing power. If a wise selection was not always made, does that furnish a sound reason for destroying the office? It may safely be said that no other office in the State would bear so severe a test." The same officer in his succeeding annual reports strongly urged upon the legislature the necessity of a restoration of the office. The Hon. Henry S. Randall, in his report in 1854, strongly condemned the present inefficient and defective system, and drew a glowing picture of the advantages, and the results of county supervision. The undersigned deems it unnecessary to quote at length the language of the reports, to which he has referred. He will be happy to aid the legislative committee who have in charge the subject of education, with all the facts within his knowledge bearing relation to this subject. It will be found that all opinion and authority worthy of the highest consideration are in favor of county supervision.

The duties of these officers should be to examine and license teachers; to visit and inspect schools; to organize and conduct teachers' institutes; to encourage teachers' associations and school celebrations; to counsel in all local questions arising under the operation of the school laws; to introduce to the notice of teachers and the people, the best modes of instruction, the physiological laws that govern the health and the growth of the young, the most approved plans of healthful exercise of the children; to awaken a general interest among the people on the subject of education; to report from time to time the condition and prospects of

the schools, and to perform such other duties as may be required by law, or the regulations of this Department.

A county superintendent, or one in each assembly district, daily visiting the schools, associating with teachers and pupils, holding public meetings in villages and neighborhoods, imparting and receiving knowledge, inspiring and acquiring zeal, encouraging the formation of Normal classes, and supervising and establishing teachers' institutes, discussing plans for developing and guiding the youthful mind, awakening parental solicitude, encouraging the teachers and inspiring the pupils with a desire for higher attainments, and infusing vitality and enthusiasm into every department of instruction, is the one thing most needful to perfect our school system. Such a supervision would awaken the people to the importance of the system, and give that intensity to the popular interest in the welfare and culture of the young, so essential to its cordial support and successful operation.

This appeal was successful. Provision was made by the legislature of 1856 for the appointment of a Commissioner of Common Schools for each county, and a convention of these officers has already been held for conference and united plans. There can be no doubt that in one years' time the torpid members of the school system will begin to show signs of life, and the predictions of the Superintendent will be fully realized.

AMENDMENTS IN THE SCHOOL LAWS. The Superintendent concludes his Report by recommending ten amendments as worthy of immediate attention.

The system of public instruction established by the legislature and aided out of State appropriations in New York, is far more comprehensive than exists in any other State. It does not fall within the plan of this article to present full details of the collegiate, academic, special and supplementary institutions, which might be gathered from the Annual Reports of the Regents, of the Deaf and Dumb, Blind, Idiotic, and other special institutions. We glean the following items from the Report of the Comptroller for 1856.

STATE EXPENDITURES FOR EDUCATIONAL AND HUMANE PURPOSES IN 1856.

Department of Public Instruction at Albany, salaries, &c.,	$8,000
Regents of the University,	2,500
Appropriation for Common Schools,	300,000
" " Colleges, Academies, &c.,	74,000
" " Teachers' Departments in Academies,	20,290
" " Normal School at Albany,	12,000
" " Teachers' Institutes,	2,000
" " Indian Schools,	3,000
" " New York Teacher, for Town Superintendents,	500
" " Institution for Deaf and Dumb, support, building,	57,215
" " " " Blind,	18,155
" " " " Idiotic,	56,305
" " " " Lunatic,	45,259
" " House of Refuge, Western New York,	30,000
" " " Juvenile Delinquents,	31,000
" " Orphan Asylums,	36,619
" " Hospitals and Dispensaries,	66,878
" " State Geological and Agricultural Museum,	30,000
" " State Library,	15,461
" " Agricultural Societies,	9,000
" " State Prisons,	480,000
" " Geological Survey,	8,741

NORTH CAROLINA.

First, Second and Special Report of the General Superintendent (C. H. Wiley,) *of Common Schools, submitted in* 1854 *and* 1855. 194 pages.

These reports exhibit the history and condition of the system, and schools in North Carolina, with plans and suggestions for the improvement of both. The Superintendent dwells on the following points.

CONDITIONS OF SUCCESS. 1. A stricter and more uniform and patient attention to the execution of the LAW.

2. Improvement in the qualification of teachers.

3. The better discipline of the schools.

WANT OF INFORMATION ABOUT THE COMMON SCHOOLS. The biennial reports of the Literary Board have been mostly confined to this one object; and hence, for twelve years, we have labored in darkness. A deep obscurity has veiled all the operations of the system—not one single general report, with details, has emanated from it—not an official statistic appeared, excepting the general urgent declarations of our judicious Literary Boards, declaring the necessity of light, and their inability to furnish satisfactory information.

As the consequences of this obscurity and uncertainty have been most pernicious, we cannot now have too much light. This is the more especially needed here, because common schools are a new thing to our people; they were adopted and started among a population having no experience in such things, having no examples before their eyes in the neighboring States, many of them wedded to other systems, and many alas! never having had the benefits of any kind of education.

The government has not only failed to furnish information so desirable and all-important, but, without by any means desiring or designing it, has exercised an influence the other way; and except in the semi-annual announcement of the division of the School Fund, and in the wise suggestions of the Governors and of the Literary Boards, and the occasional patriotic exertions of members of Assembly, the existence of the common schools has been seldom publicly recognized. We have two Almanacs published in the State, by enterprising and public spirited gentlemen; and yet, even in these useful repositories of local statistics carefully made up, and which go into every house, the most important interest of North Carolina has not been named! I by no means wish to be considered as censuring the publishers; I mention the fact as a most significant and ample illustration of our carelessness in furnishing that light so all-essential to the healthful progress of our system, and of our failure even to recognize in our recorded statistics the existence, much less the progress, of this great and fundamental institution. The members of the last Assembly were fully awake to the importance of this matter; and it is my ardent desire to justify their liberal confidence in using all possible ways to reach with information and statistics, every citizen of the State. To do this, I must of course speak with more than one tongue; and among other means I have reflected on the propriety of issuing a Common School Almanac for universal and free distribution. I desire the reading matter to consist of descriptions and short histories of other systems—statistics from other States—sketches, anecdotes and statistics of our own system—general information about education, suggestions, regulations, duties of officers, &c., &c.

It is not at all uncommon to have men on committees who can not read: some of these, as I know from personal observation, make capital committee men, all things considered, when there are checks and guards by which they can learn a teacher's character and capacity from disinterested persons of more intelligence.

TEACHERS. There has been great complaint in regard to them; and I know it to be a fact, that their incompetency and their want of fidelity in many, many cases, have given just cause of complaint. This is a real sore, and one of the severest which now afflicts our system; and the character of these teachers has done much to disgust a large class of citizens with our system, and to cause intelligent people to refuse to send to the schools, or to interest themselves in their success.

It is not the want of money which makes indifferent teachers and indifferent schools; we have a good illustration of this, in the fact that the best schools are by no means to be found in those counties where the largest salaries are paid. Of course good teachers ought to be well paid; but bad ones have been paid as much as the good ones, while much better ones could be employed for the same salary. I do not say the sums paid are sufficient for worthy instructors; but I do assert

that much better ones might be employed at the same rates, and that the mere increase of the salary will not elevate the standard of teachers without the assistance of other causes. On the contrary, large salaries under the old regulations would often enhance the nuisance; it would be an inducement to imposters and adventurers to swarm among us in pursuit of the sums thrown out to attract the attention and excite the enterprise of such characters. Have it understood that fifty to seventy-five dollars per month were to be paid to those who would *fill in* so many days in a school-house; and that no evidence of moral character, and no certificate as to mental qualifications from those capable of judging, and no reports of the manner in which they had discharged their duties, were to be required, and you will have not merely, indifferent teachers, and respectable and moral persons now so much complained of, but every ignorant neighborhood, from the seaboard to the mountains, infested and overrun by plausible, worthless, and dangerous characters; setting on foot all sorts of intrigues, imposing on the credulity of the simple-minded, and even conspiring with local speculators to obtain and divide with them the tempting spoils. Small as salaries now are, there have been reports of improper influences to obtain them—reports about committees selected by a few, with a view of employing relatives to teach the school, and even of higher officers using influences to have employed persons indebted to them, &c., &c.

The difficulty about teachers, as to numbers and qualifications, is the natural result of our former and present condition, with respect to general education: and it is a difficulty which the cause of education itself will have to overcome.

YEARLY EXAMINATION OF TEACHERS. Teachers must be yearly examined; to make this more effective as a stimulus, I prepared a form of certificate, which was to indicate the grade or rank of the teacher on the branches of spelling, reading, writing, arithmetic, geography, and grammar. Figure 1 attached to each study denoted the highest grade of scholarship; figure 5 the lowest allowable rank.

This form, approved by the Literary Board, was sent to all the counties. The effects anticipated were these: it was intended to honor good teachers by indicating their rank above others not so good, but still allowed to teach; it was intended to put committees on their guard, showing them the relative proficiency of the different persons licensed; and it was expected to excite emulation, and also to furnish officers and the public with the means of judging of the progress of the teacher from one examination to another. Few would like to take out the same numbers, if low, each year; and it would give the Committee of Examination a good reason for cutting off those who took out the lowest numbers on all studies and failed to improve. This was the second step; and with the certificates went instructions from me to the Examining Committees, explaining the law and the certificate; suggesting to them to have reference, in the granting of licenses with low grades, to the wants of the community; to be lenient at first with poorly qualified persons of good character, but to continue to elevate the standard by degrees, and to see that the law was enforced.

Some teachers held back—some affected to treat the idea of their being examined with contempt—but the chairmen, feeling sustained by the Superintendent, and knowing that through a general organ of this kind the prejudice of one neighborhood could be brought to the judgment of the whole State, and thus exploded, did their duty generally with commendable discretion and firmness. Appeals made to me from their decisions, even by college students, were not sustained; and under my advice payment was withheld in several cases from teachers who had failed to be examined. Finding the officers disposed to sustain each other, they were glad at last to pass the ordeal; and intelligent persons become more and more encouraged to act on Committees of examination, and to take an interest in the cause.

PUBLIC RECORD OF THE STANDING OF TEACHERS. This year, I have endeavored still further to build on this foundation happily laid; a foundation, the character of which, I have taken much pains fully to ascertain.

After careful consideration, a new form for the annual returns of chairmen was devised; and this form, without adding but very little additional trouble to the chairmen, contains columns and captions for a record of the names and rank of each teacher licensed.

This would be a still greater inducement to teachers to improve; and it would also enable us to see and understand our whole position, with respect to the supply and character of teachers—information very necessary to be known by all who wish to be able to understand and to aid our system. The form contained ample explanations, and males and females were to be distinguished, as it is important to have a good corps of female teachers, to operate wisely, for which we must first see how we stand with respect to them.

This form, also, by its caption would enable us to see how the fund is divided in each county, and how much is paid to each district, or divided for each child.

Still farther to improve these Normal Schools in efficiency, I have instructed or rather suggested to the chairman in the various counties, to put the names and rank of the teachers on the copies of their returns to be posted at the Court-House doors; and I do not think I can be accused of too much stringency while I am conscious that all these general regulations have to operate on relatives and intimate friends. Good teachers will delight in all such efforts by which they only shine the brighter; and all young people coming under these regulations, being forced to push on in the race of improvement, will some day rejoice that they had to pass through an ordeal that taught them self-reliance, and the necessity of persevering efforts at continual improvement.

TEACHERS' LIBRARY ASSOCIATIONS. As a farther means of improvement, I most earnestly recommend the formation of Teachers' Library Associations. Every trade and profession should be learning by experience; but how many teachers in North Carolina have read one single book giving an account of the experience and improvements in their profession in other places? How little inter change of thought is there on this great subject here!

There are a number of good works on the subject of school-teaching—and any one of these, even the most indifferent, might be read with great profit by our teachers generally.

They have Teachers' Institutes and Teachers' Societies of various kinds in other States; none of these would suit our peculiar position, for reasons which I could give, but deem it unnecessary to occupy time in discussing here.

The Library Association, on the principle indicated in my report to the Assembly, would be a Society peculiar to us, in many respects—and yet it is founded on the principle on which Teachers' Institutes are founded in other States.

The legislature should pass a general act of incorporation, giving corporate existence and privileges on certain conditions to the chairmen of the board of County Superintendents and the teachers of each county and committees of examination; and an appropriation of one dollar or more for each school-district—(in that proportion, that is) should be made for a foundation. Let the Chairman be Librarian, with a certain remuneration—and let each teacher pay fifty cents, more or less, annually, for the privilege of membership.

The Superintendent can furnish or recommend a list of books, in conjunction with the Chairman; and each teacher who joins should have the fact stated on his certificate.

These associations will increase in consequence, they will form meeting places for teachers to assemble and discuss the affairs of education, and furnish proper places for lectures, by Superintendents and others; besides, when the minds of teachers are thus brought in contact, the superior intellects will diffuse themselves and be reflected in the action of all the teachers in the association.

SCHOOL BOOKS MUST HAVE REFERENCE TO THE STATE. I determined, if possible, to make arrangements to have the children classified, and to get into use one uniform system of good books; to insure this end of classifying the pupils, to save cost, to have good sources of instruction in the schools, and to have the young mind of the State in its plastic condition, learning about North Carolina, and learning to love the State, and to take an interest in its institutions. This of itself would make a great revolution in time; how could we feel an abiding interest in the common schools or in any other institution of the State, when under the old way of doing things, we were educated to love and respect every other country, and the affairs of every other country more than our own. I determined, therefore, to have a good series of North Carolina Readers; but so little respect have publishers had for our State, that I might not have been able to induce any one to risk it, except for the moral influence of the office I hold. It has influence with publishers; and I determined to make it tell for the good of our schools.

I made personal sacrifices myself of an amount of some importance to me; and I induced publishers to undertake a complete series, the whole to be prepared under my supervision. I selected Professor Hubbard, of the University, for Editor; and the publishers are a liberal and honorable firm in New York.

I would willingly have intrusted the selections, &c., altogether to Professor Hubbard; but his diffidence induced him to make me promise to examine everything.

Any one who undertakes a series of readers for youth, will find the task, all things considered, a perplexing one; the preparation of contents, selection of engravings, the rules, kind of execution, prices, &c., &c., are all grave subjects, &c., &c. To add still farther to the utility of this work as a Common School Text-Book, I procured a likeness of Bartlett Yancy, the immediate father of the Common Schools of North Carolina, to be engraved, and accompanied by a short familiar sketch of his life. No invidious distinction is intended; the object being to dignify common schools, to learn the children the idea that the great promoters of com-

mon schools are to be respected, and thus also, indirectly, to show other great men that if they are not promoters of the education of the poor children of the State, these children may not appreciate them as highly as others, perhaps of less note as politicians.

As I have often intimated, we must begin at the root of things to have an efficient system of public schools in North Carolina; there must be a revolution in the ideas and heart of the State, and the most fruitful seeds of such revolutions are school books.

SCHOOL LECTURES. In other States where common schools exist, they have Teachers' Institutes—associations of teachers for improvement, and the State being laid off into a certain number of these, the Superintendent, or some one designated by him, delivers occasionally lectures to them; and the teachers are required to attend, and they have their expenses paid. Now, so far as speeches are concerned, here is a vital centre through which they can operate to advantage. How is it in North Carolina?

When traveling, to acquaint myself with the character of the State, I often undertook to deliver lectures, and I was of opinion that many who heard me, began to feel a new interest in the cause.

But many of our so-called intelligent people would not attend, looking on the whole common school machinery as not intended for them—and they, whom they called the common people, had no excitement to draw them out, no example of interest set by others, while teachers, afraid no doubt of exposing themselves in some way, rarely ever attended. Hence, speech-making in North Carolina was not calculated much to advance the cause.

IMPORTANCE OF COMMON SCHOOLS. In common schools the people are infinitely more interested than in all the other literary institutions of the country. Colleges and academies reach, in their influences generally, only a favored few: even railroads and river-improvements reach only a portion of the people with their benefits. On this institution, and this alone, depends the temporal welfare of all the people: this is the great interest of all humanity, in every cottage and cabin, in all its phases, and all its positions throughout the entire scope of the State, and wherever in it is found the haunts and homes of men. It is the temporal hope of the masses for advancement in social rank, in political rights, in industrial prosperity: it is also the base of the pyramid of society, the foundation on which rest the prosperity of all classes, the stability of law, the security of the possessions of the rich, the liberties of the present, and all the hopes of the future. This is simple, unvarnished truth; and hence, from its own importance, from our want of experience, and from the difficulties by which it is surrounded, it makes the most solemn and urgent appeals to those to whose hands its destinies are committed. The efficient management of a concern so great, so lasting and pervading in its influences, implies care, investigation, liberality, commensurate with the interests at stake.

STATISTICS. The number of children now attending common schools, in seventy counties, is eighty-three thousand eight hundred and seventy-three, and the number in the counties not heard from, and the number not reported, may be safely estimated at twelve thousand more, making at least ninety-five thousand, who attended common schools in 1853, against fourteen thousand nine hundred and thirty-seven in 1840, being an increase of over six hundred per cent. in the number attending primary and common schools.

There were 632 primary and common or country schools in 1840; and I am thoroughly convinced, that if all our twenty-five hundred common schools are not as good as those 632 subscription schools were,—(and certainly they are not by a good deal,)—yet that there are more than one thousand common schools now in operation, which in all respects are equal to the 632 schools heretofore in existence. I am convinced that for every two good subscription schools broken down by the common schools, we have at least three equally good common schools and one academy somewhere else, or two good schools for one, besides three or four other schools not so good, for every one thus interfered with.

The average time during which all the schools are taught in the year, is about four months; and the whole number of white children between the ages of five and twenty-one years, can not be short of 195,000.

From the foregoing statistics, I am fully warranted in asserting that the average ignorance among the generation now coming on, will be at least fifty per cent. less, or only one-half as great as among those now on the stage of active life in North Carolina.

Great are our inducements to labor. Perhaps fully one-sixth of the free, grown-up people of North Carolina can not read the word of God!

OHIO.

Second Annual Report of the State Commissioner (H. H. Barney,) *of Common Schools, to the General Assembly of Ohio, for* 1855. 128 pages.

In 1853, the legislature of Ohio adopted a new school law, by which important alterations were made in the system of common schools, and the election of a State Commissioner by the people provided for. In 1852, H. H. Barney, at the time Principal of the Woodward High School, in Cincinnati, was elected to the office, and we have before us his Second Annual Report.

PLANS AND MEANS FOR THE MANAGEMENT AND IMPROVEMENT OF COMMON SCHOOLS. Prominent among the various means and plans for making our system of free schools more efficient, which have been fully tested, and received the sanction of enlightened educationists, may be enumerated the following, viz:

1. Each city, town, incorporated village, and civil township, should compose but a single school district, and the schools thereof be confided to the management and control of a properly constituted Board of Education.
2. Properly constructed school-houses, occupying eligible sites, and possessing ample play grounds.
3. Well educated, efficient and devoted teachers.
4. Great care and thoroughness in the examination of teachers.
5. Normal schools organized and conducted with reference to the sole and definite object of instructing in the art of teaching.
6. Properly managed Teachers' Institutes, Teachers' Meetings, and the formation of Teachers' Associations.
7. Competent visiting agents charged with the important duty of organizing and superintending Teachers' Institutes, delivering educational addresses, and suggesting to teachers, in their own schools, the best manner of instructing classes.
8. A system of vigilant and thorough supervision.
9. Teaching but few subjects at one time, and teaching them thoroughly.
10. A judicious course of study and oral exercises for each class, department, and grade of the school.
11. A uniform series of class or text-books, and a strict adherence to it for a reasonable length of time.
12. Judicious efforts on the part of teachers, parents and school officers, to induce all the youth of suitable age, resident within the district, to attend the schools.
13. Unremitting efforts to secure regularity of attendance.
14. The active and zealous co-operation of parents and school officers.
15. Maps, charts, diagrams, globes, and other illustrative apparatus, for common schools, and chemical and philosophical apparatus for high schools.
16. School district, or township libraries.
17. The introduction of the system of gradation to the greatest practicable extent.
18. The establishment of high schools and high school departments.
19. The education of youth at schools in their own neighborhood or township.
20. The education of both sexes at the same school, provided they can board at home, while attending it.

ABOLITION OF THE OLD DISTRICT SYSTEM. The school law of 1853 constitutes each and every organized township in the State but one school district for all purposes connected with the general interests of education in the township, and confides its management and control to a Board of Education. The law also contains provisions for introducing a system of graded schools into every city, town, incorporated village and township in the State. In accordance with the same principles and for the purpose of accomplishing the same beneficent object, the legislature of Indiana, in 1852, enacted a school law abolishing all the school districts, and declaring each civil township in the several counties a township for school purposes, and the trustees for such township, trustees for school purposes; and the clerk and treasurer, clerk and treasurer for school purposes; and that "the Board of Trustees shall take charge of the educational affairs of the township, employ teachers, establish and conveniently locate a sufficient number of schools for the education of the children therein," and that "they may also establish graded schools, or such modifications of them as may be practicable."

Whatever diversity of opinion may exist among educationists, as to the best manner of constituting township boards of education, there can be but one opinion as to the propriety of having a township school organization. Facts, experiments, the observations and opinions of those competent to judge, have fully settled this

matter. It is not, however, so clearly determined whether the school committees or boards of education of townships should consist of three or six persons; one-third to be elected, and the other third to go out of office, annually; or whether they should be elected by the township at large, or by the sub-districts. Nor is the principle fully settled, whether a township should be divided for certain specific purposes, into sub-districts or not. But it is fully settled that if a township is thus divided, the lines of the sub-districts should not in the least interfere with the proper classification, gradation and supervision of its schools.

It is thought by some that to provide the same amount of means and facilities for educating those who reside in the poorer and less populous portions of a township, as for those in the wealthier and more thickly settled portions, would deprive the latter of their rights; just as if the taxes for the support of schools were levied upon sub-districts, and not upon the State and townships.

If all the property of the State and of the townships is taxed alike for the purposes of educating the youth of the State, there is no principle plainer than that all should share equally, so far as practicable, in the benefits of the fund thus raised, whether they reside in sparse or populous neighborhoods.

SCHOOL ARCHITECTURE. In 1852 the legislature authorized the purchase and distribution of a copy of "*Barnard's School Architecture*,"* to every township board of education, and local directors. This distribution has been followed by the construction of many new houses and the thorough repair of old structures, on tried and approved plans of arrangement and furniture—over a half million of dollars ($518,000) having been expended for these objects in 1854.

During the year, 740 school-houses have been erected, and several of them are models of taste and convenience. And it is most gratifying to state that nearly two-thirds of the school-houses in the State are reported "*good*," and more than one-half of the remainder are represented to be in a tolerable condition.

If any one doubts the intimate connection between good school-houses and good schools, let him consider how difficult it generally is to induce a good teacher to go into a district where the school-house is too small, badly constructed, improperly seated, unpleasantly located, without the requisite means of ventilation, destitute of playgrounds and out-buildings; and, more important still, how difficult it is to secure regularity of attendance, and render the school attractive. If he still doubts the indispensable agency of good school-houses in creating good schools, let him, as he travels through the State, stop and contemplate the forlorn, gloomy and repulsive aspect of some of those ancient "*squatters*" on the public highway; let him enter them and note their diminutive size, rough and filthy floors, low ceilings, dilapidated desks, slab seats, dingy walls, and their unhappy and cheerless inmates; and after he has observed the slovenliness, disorder, coarseness, vulgarity, and the marks of obscenity on the very walls of the building, let him listen to the recitations, and observe how perfectly they correspond with the condition of things already noticed. Then let him pass on till he comes to one of those tasteful, attractive, elegant school-houses, with which the State is beginning to be honored and blessed; and after viewing its fine proportions, pleasant site, and ample play-ground, let him enter it and examine its superior facilities for the successful prosecution of study, its excellent arrangements for promoting the convenience, health and comfort of the teacher and pupils, for forming in them habits of neatness, order, taste and purity, and for exciting them to make high attainments, and aim at honorable distinction. Let him extend his observations still further, and he will find not only the building located and constructed with special reference to the laws of health, mind and morals, replete with everything that can delight the eye and gratify the taste, and admirably adapted to cultivate courteous manners, to inspire refinement of feeling, and to promote habits of study and thought, but he will actually find neatness and order among the pupils, skillful teaching, prompt and accurate recitations, refined manners, and good morals.

EXAMINATION OF TEACHERS. From a few counties, complaints have been made to this department, that schools, in some cases, have been deprived of teachers, owing to the high order of qualifications which the examiners demanded of the candidates for certificates. But every experienced school examiner, or other school officer, knows full well, that the demand for good teachers has never long failed to bring the proper supply. It is a fact with which most are familiar, that, in every township, some of the schools have been almost uniformly excellent, while

* School Architecture: or Contributions to the Improvement of School-houses in the United States. By Henry Barnard. Sixth edition. Cincinnati: H. W. Derby & Co.

others have been as uniformly inferior. The reason is apparent. In the former, the demand has always been for good teachers and no others; but in the latter, the proclamation has been, "our school is backward, therefore a poor teacher will answer the purpose."

NORMAL SCHOOLS. Wherever public opinion has become fully enlightened on this subject, "it is admitted that teaching is an *art* to be learned by apprenticeship like any other art, and that special training for the business of teaching is as indispensable as for any pursuit or profession; and the time, it is believed, is not very distant when intelligent parents would think it no less absurd to place their children in charge of a teacher, who had not been trained in the principles and methods of instruction, than to employ a surgeon who has never made himself acquainted with the science of human anatomy."

Mr. Cyrus McNeely, of Hopedale, Harrison county, has donated buildings admirably adapted for school purposes, and thus occupied hitherto, to the endowment of Normal Schools. The gift includes spacious and beautiful grounds; has been appraised at $11,600, but is subject to the condition that the State Teachers' Association shall raise the additional sum of $10,000. An effort is now making to comply with this condition; and no worthier object for the aid of the State is likely to be presented for the consideration of the General Assembly.

The McNeely Normal School was organized by the election of eleven trustees, who have appointed Cyrus McNeely, President, Asa D. Lord, Secretary, and George K. Jenkins, Treasurer. The regular course will occupy two years, to enter upon which, with profit, the students should already be familiar with the branches usually taught in schools.

A similar enterprise has been undertaken at Lebanon, Warren county, under the designation of the "Southwestern State Normal School." Mr. Alfred Holbrook, with five assistants, are announced as teachers. The organization resulted from a general concert of action among those engaged in the instruction of youth, and is auxiliary to the Ohio State Teachers' Association—a very favorable location, and commodious buildings have been already secured—the first session has elapsed with seventy pupils in attendance, and all the indications of future usefulness are very satisfactory. The terms are so arranged that while some young persons can pursue a regular course of training, study and practice in an experimental school, others, already engaged as teachers, can, during the interims of their own schools, attend a session of eleven weeks, more or less, without interfering with those pursuing a regular course of study the latter being not unlike what is prescribed at the McNeely Institution.

TEACHERS' INSTITUTES. The usefulness and efficiency of properly organized and well managed Teachers' Institutes, no longer admit of a reasonable doubt. For sixteen years their utility has been thoroughly tested. This indispensable agency in the cause of popular education, originated in the State of Connecticut; and the first body of teachers was assembled for the purpose of being taught how to teach, in Hartford, in 1839, at the instance and on the recommendation of Henry Barnard, one of the distinguished pioneers of educational reform in this country. Very soon thereafter, it was introduced into all the New England States, and has now found its way into every State which enjoys the priceless privilege and blessing of a good system of public instruction. This instrumentality has proved eminently successful, not only in directing the attention of the people to the importance of education, and of diffusing among them correct and enlarged views on the subject, but in bringing the teachers together; awakening in them a proper appreciation of the responsibilities of the work in which they are engaged; giving them much valuable information in regard to the best means and plans of organizing, instructing, and disciplining their schools; exciting in their minds greater zeal for their important vocation; in short, imparting to them that which is the paramount and pressing want of our common school system—*the theory and art of teaching*. These institutes are capable, if rightly managed, of being rendered instruments of great power and efficiency; and they should, therefore, receive at the hands of teachers, school officers, and the people at large, that encouragement and support which their importance in the economy of the system, demands.

In the absence of any State provision, Teachers' Institutes have been held under the auspices of State Teachers' Associations, and other voluntary efforts, originally put forth in Ohio by Dr. Lord, Pres. L. Andrews and others. According to the Report of the Agent of the Association for 1853, thirty-eight Institutes were held with an aggregate attendance of 3738 teachers. Mr. Barney recommends that "a small portion of the amount annually collected for school purposes be applied to the encouragement of Teachers' Institutes, or Normal Classes."

COMPETENT VISITING AGENTS AND LECTURERS. To three important instrumentalities for the advancement of public education, namely, Visiting Agents, Teachers' Institutes and Normal Schools, is Massachusetts greatly indebted for the present proud elevation of the character of her public schools. And equally is Ohio indebted to the eminently efficient services rendered by Lorin Andrews, Esq., now President of Gambier College, and to Dr. A. D. Lord, while acting as the Agents of the "Ohio State Teachers' Association." Wherever they went, whether into the schools, before Teachers' Institutes, educational assemblies, new life and vigor were infused into our educational system. The cause of popular education rose in public estimation, teachers were rendered more competent to instruct and more powerful to influence, and those methods of imparting instruction and securing good discipline, which the most enlightened and experienced teachers had found by actual practice, to be most successful, were more widely disseminated. Valuable suggestions were made respecting the art of teaching and conducting schools, the structure of school-houses, the union of districts for the purpose of grading the schools, the classification of scholars, and the most successful means for elevating the profession of teachers.

It is a high and a well deserved compliment to the teachers of Ohio, that, at their own expense, they so long sustained in this important sphere of operation, two gentlemen of great practical experience and untiring zeal. The effect of such efforts in the noble cause of public education, will long be felt and appreciated throughout the entire State. The result of such labors is seen in the numerous union and graded schools which are rapidly springing up in almost every county in the State, in the improved methods of organizing and instructing schools, and in the deep interest which is manifested by the people in these educational improvements. With such efforts, such zeal, and such persevering endeavors to incorporate into our school system, whatever long experience and careful observation has demonstrated to be of practical utility, Ohio is destined to excel in learning and true wisdom, as well as in her physical greatness and prosperity.

SCHOOL SUPERVISION. An intelligent and efficient system of school supervision should be regarded as of vital importance to the welfare and success of our common schools. Let such a system be established and it will work a cure of nearly every unsoundness which now impairs and cripples the efficiency of so many of the schools in the State; for it is one of those vitalizing elements in a school system, which is capable of eradicating from it a thousand defects and evils. If school visitors, school officers, and parents would faithfully and intelligently discharge their duty in this regard; if they would prescribe suitable rules and regulations for the management and discipline of the schools under their supervision, fix upon a proper course of study, select a good series of text-books, report unfaithful and incompetent teachers, carefully observe the plans and methods of instruction adopted in the schools, impart proper advice and directions, inculcate in the scholars a spirit of obedience and subordination to authority, and an earnest love of study, encourage and stimulate parents to visit their schools and co-operate with the teachers—if school visitors and the friends of popular education would faithfully do these things, a new and important era in school reform and improvement would at once be ushered in.

In this State, a competent superintendent for each judicial district, would, for the present, answer the purpose full as well, if not better, than one for each county.

COURSE OF STUDY. Township boards of education are empowered "to determine the course of study to be pursued in the several schools under their control." This duty is much more important than is generally supposed; for, upon its prompt and judicious performance, the progress of the scholars, and the general prosperity of the schools most materially depend. A course of study and of oral exercises, adapted to the ages, capacities, and attainments of the pupils in each grade or class, would essentially aid in giving steadiness and efficiency to all the operations of the school; assist the teacher in systematizing his business, and economizing his labors; encourage a hope of promotion in the pupils, by enabling them to see at once what amount of work they must perform in order to be advanced to a higher class or grade.

It is earnestly hoped, then, that no board of education will allow another year to elapse without attending to a matter of such vital interest to the schools under their charge. By conferring with the most experienced and successful teachers in their respective counties, by taking the advice of their county examiners, and other enlightened friends of education, they will find no difficulty in fixing upon a proper course of study for the schools in their respective townships.

TEXT-BOOKS. No evil connected with the present condition of our schools calls more imperatively for immediate correction, than the great variety and frequent change of text-books.

Among these disadvantages are the following, viz:

1. It tends to multiply the labors of the teacher by compelling him to divide his pupils into as many classes as there are kinds of books on the same subject in the school; for at each change some of the former books will still remain.

2. It shortens the recitations of each class, and thus prevents that careful and deliberate hearing of recitations, which is indispensable to thorough scholarship and proper mental discipline.

3. It prevents the teacher from making that due preparation for each class and each recitation, which is necessary to excite in his own mind and in the minds of his scholars a lively interest in the study. Even an experienced teacher cannot use a new work with the same advantage that he could the one with which he had long been familiar.

4. It prevents the formation of large classes, and the stimulating effect which such classes always have upon both pupil and teacher.

5. It renders it necessary to keep the scholars much longer on each subject of study than would otherwise be necessary, and thus abates their interest in it, and induces many to abandon the study entirely.

6. It subjects parents to a needless expense, tends to bring our whole school system into disfavor, and uselessly consumes much valuable time.

7. Where boards of education neglect to adopt for the schools under their supervision, a uniform series of text-books, the matter is too often subject to the dictation of teachers; and the teachers, especially in the country schools, being frequently changed, and it being the interest of each new teacher to introduce such books as he has been accustomed to use, the schools soon become filled with a multiplicity of books on each subject of study, the number of classes becomes too great for thorough instruction, and the pupils, in many instances, continue stationary from year to year.

8. It adds to the cost of education, not only by increasing the expense for text-books, but also by protracting the period required to make the scholar master of a study. It holds out a continual and direct invitation to book-makers, publishers and agents, to be constantly pressing teachers and school officers for new changes, and thus tends to perpetuate and extend these various evils.

The prompt removal of these injurious consequences is, we repeat it, the imperative duty of boards of education. And to this end they should determine at the earliest practicable day, what text-book shall be used in each study, and how long it shall continue to be used in the schools of their respective townships.

NON-ATTENDANCE AT SCHOOL. It is obvious that something ought to be done to secure the education of those whose parents, either from defective education in themselves, or from the pressure of immediate want, or from ignorance of the great privileges which our public schools offer, or from the selfishness which is encouraged by finding profitable employment for their children, do not avail themselves of the means offered by the State to secure a proper education for their children.

To induce the people to act as becomes their duty and true interest in this matter, several distinguished friends of education, including several State Superintendents of public instruction, have recommended that the State school funds be apportioned among the counties, townships and school districts, not according to the enumeration of youth of school age, but according to the average yearly attendance of scholars in the several common schools; thus making it the interest, as it is the duty, of every inhabitant of the district to urge the constant and regular attendance at school of all the children residing therein. While we have among us so many children of foreign parents, recently arrived in our country, or speaking a different language from our own, or engaged in our manufactories and on our public works, and while we have among us so many parents who are too indifferent, or too reckless, or too poor to send their children to school, all who are charged by the State with the care and supervision of our common schools, and all who feel that as individuals they owe something to their country and the world, should see to it that these children are trained up for intelligence, virtue and future usefulness. They are destined to be our fellow-citizens, perhaps our judges and rulers, and therefore every dictate of enlightened patriotism and humanity demands that we should make all reasonable efforts to put them in a way to become intelligent and upright members of society.

IRREGULARITY OF ATTENDANCE. The annual school reports from county auditors disclose the fact that the average yearly attendance of the scholars in our common schools is less than two-thirds of the average number enrolled or belonging to the schools.

Hence it is easy to see that, in consequence of irregular attendance, not only one-third of all the school funds annually raised and distributed for the payment of teachers, is lost, actually thrown away, but one-third part of the time allowed for the cultivation of the minds of the youth of the State, is also lost. To the ac-

count then of irregularity of attendance, the annual loss of half a million of dollars may be justly charged.

But this most lamentable waste of money is but an atom in the scale, when weighed against neglected opportunities, misspent time, and the formation of evil habits.

Let it also be impressed, again and again, upon teachers, parents, school officers, and the friends of education generally, that the loss of only so many days of mental culture, as the pupil may be away from his school, constitutes but a tithe of his real loss. The absence of a day severs an important link from the chain with which all the parts of a subject of study are connected together, and thereby greatly enhances the difficulty of mastering the subsequent lesson. Besides, on his return to school after an absence of a day or two, his interest in his studies will be materially abated, making it more difficult for him to fix his attention upon them in consequence of his mind being pre-occupied by the events and scenes which arrested his attention and interested his feelings while absent from school. Mental philosophers tell us that the memory depends upon attention, and attention upon the interest which we take in what is presented for our contemplation. Whatever, then, tends to abate this interest, impairs attention, and, of course, under such circumstances, what we learn the memory holds by a feeble tenure.

Moreover, at each return of the irregular pupil, he finds the general character of his recitations becoming more and more inferior to those of his classmates, and hence discouragement and listlessness steal gradually upon him, until ultimately he falls out of his class, and perhaps leaves the school in disgust.

Nor is this the extent of the evil; whenever any scholar unnecessarily absents himself from the school, or is unnecessarily detained by his parents, not only is so much of his time lost, so much of the school money lost, so much that is valuable in mental discipline lost, and so much of his desire for learning and his ability to acquire it impaired, but the whole school suffers.

Its arrangements are disturbed, the progress of its classes are delayed, the punctual scholar is obliged to wait for his laggard classmate, and the teacher's patience is severely tried.

Frequent absence from school for insufficient reasons, are very prejudicial to the pupil in another respect. They tend to form in him a habit which may cling to him through life, and seriously injure his character as a man of business, and subject him to mortifications and losses, which a habit of punctuality formed in early life, would have enabled him to avoid. There is no trifling fault which produces more inconvenience to society than a want of promptitude in attending to every duty at the proper time. Hence the great importance of forming at school a habit of rigid punctuality. Parents should duly consider this matter, and never detain their children from school upon slight grounds, and for trifling purposes; indifference to this subject on their part, encourages irregularity on the part of the child; that irregularity begets an inclination to play the truant; and truancy begets falsehood, and then the moral character of the child receives a shock from which it may never recover.

Absenteeism is, then, one of the worst evils under which our schools labor. From a good school it takes away its best influence, and a poor one it renders worse than worthless.

GLOBES, MAPS, AND OTHER ILLUSTRATED APPARATUS. During the last fifteen months, there have been forwarded to the Auditors of the several counties in the State, for distribution to the Common, Union and High Schools, 91 *orreries*, 339 *tellurians*, 6,805 five-inch *terrestrial globes*, 5,182 *hemisphere globes*, 943 *numeral frames*, and 1,140 *geometrical solids*. *Outline maps*, and *chemical* and *philosophical apparatus*, to the value of $1,525.60, have also been forwarded. The cost of all the apparatus which has been thus distributed, was $15,804.49. Most of this apparatus is denominated Holbrook's Common School Apparatus, manufactured by the Holbrook Manufacturing Company, of which F. C. Brownell, Hartford, Conn., is Agent.

SCHOOL DISTRICT LIBRARIES. During the years 1854 and 1855, the number of volumes distributed amounted to 258,926, and the cost of the same was $150,787.08.

It has become a sort of axiom with many of our ablest and most experienced educationists, that a good library is quite as indispensable to a good school, as a good school-house and a good teacher. Indeed, it is now regarded, in many places, as a part of the business of the teacher, to encourage in his pupils a taste for reading, by calling their attention, at stated periods, to the interesting incidents and valuable information contained in particular works, and by assigning to them, as themes or topics for their essays or compositions, important facts and events described in the volumes of the library.

It is an essential part of education to render accessible to the young a choice

collection of books, and to encourage and stimulate in them such a genuine and passionate love of reading as will abide with them through life, and be held fast under every change of fortune. Hence it is that so many of our most successful teachers are reluctant to engage in schools where the pupils can not have access to good libraries; for they know that a love of reading begets a love of study, and is ever prompting to higher attainments, nobler aspirations, and more rational enjoyments. Hence it is that those who are solicitous to train up the rising generation for virtue, intelligence, prosperity and happiness, are the strenuous advocates for the establishment of public libraries. Hence it is that men of experience and observation have expressed the belief that the merest rudiments of education, if associated with a firm habit and a hearty love of reading, would prove a better safeguard for the young, as they embark in the rough conflicts of life, than a collegiate course, without the habit or love of reading. Hence it is, also, that the enlightened, modern, American idea, seeks to embrace in our educational system, not only a thorough and systematic course of school instruction, but also to introduce into every neighborhood entertaining and instructive books, and excite a taste for reading them.

District libraries, containing the biographies of men whose lives have been a blessing to the human race—the inventors of the press, the steam-engine and the telegraph, the spinning-jenny and the cotton-gin—eminent statesmen and profound jurists, distinguished moralists, chemists and philosophers;—district libraries containing travels and discoveries in foreign lands, inventions for securing convenience and comfort to life—improved methods in farming and manufactures, and new modes of rendering the powers of the material world available to the use of man; such libraries can not but do most valuable service in calling out the talent of any community, and giving it power and direction. God has not withheld genius from any class of society, and has ever bestowed it abundantly upon the middling and poorer classes. The true wealth of a nation consists not mainly in broad and fertile lands and mines of ore, but in its mental and moral power. Intellect spreads the barren soil with waving grain; the want of it would render Eden a garden of weeds. The true means of advancing our prosperity are coincident with those of developing our intellectual and moral forces. That libraries, thickly sown as our towns and villages over the land, would be eminent agents for this object, admits of no reasonable doubt. Every rich man provides a library, that the minds of his sons and daughters may feed upon it, and grow strong. District libraries are this same mental food placed in the public market, so that all the hungry may go and eat. How small the expense which thus secures to all one of the highest blessings. What farmer or mechanic can say that his humble roof does not shelter as much of mind as God ever gave to Newton, or Webster, or Jefferson, or Fulton, or Demosthenes, or Morse, or Arkwright; or can say that the highest examples of human development, and human achievement, set before them in the volumes of a district library, would not incite his children to be and do likewise? And if these libraries should be the means of calling out one such name, how ample the reward every citizen would reap for his slender contribution to establish them.

These libraries will prove a source of incalculable benefit in another regard. They will invite the youth of our State to form a taste for reading at almost the only period of life when a taste for reading can be formed. It is a cheering truth that the treasures of youth are the stores of age. Old men inform us that when the eye has become dim, and the ear dull, and the memory feeble, and manhood almost a blank, the mind leaps the gulf of its palmy years, and dwells with unutterable peace upon the delights and impressions of early youth. The books they then read, and the scenes amid which they then studied, form no small share of their capital for happiness;—the great and good of other ages and climes with whom, in their early reading, they became acquainted, kindly come to visit them as they hasten to the grave, cheer them in the advancing gloom, and receive them to the light beyond.

Another benefit springing from these libraries, will be their influence upon the public morals. Never, since the first press was started, has there been disgorged upon the whole community such a multitudinous mass of corrupting literature as now. Upon every blooming virtue of the human heart, upon every manly aspiration, this deadly plague has descended, like the locusts upon the plains of Egypt. What hamlet has not this yellow, livid trash reached? Like the dram by the abandoned inebriate, this baleful literature is sought for by our youth with impatient eagerness, and devoured with hasty voracity. Good school libraries, properly selected, would greatly counteract this tendency; and, by supplying a wholesome ailment, substitute strength for imbecility and virtue for libertinism. They will impart additional interest to the scenes of youthful study—relieving the joyless elements of the exact sciences—unbending the mind over that which is pleasing as well as instructive—encouraging the pupil to regard the school room and its

pursuits as sure passport to distinction, and an important means of laying a proper foundation for future usefulness and honor, and thus rendering all the appliances for developing mind a harmonious whole. These libraries will most materially increase the efficiency, elevate the character, and enlarge the sphere of the whole common school system. They will greatly assist in drawing out and developing, on a liberal scale, the talent of the State. They will tend directly to increase intelligent reading in our schools by waking up mind, giving to the pupils higher and wider ranges of thought, making them better acquainted with the beauty, power and expressiveness of our noble language, and thus enabling them to read with more interest, ease and effect. These libraries, containing the history of the rise and fall of nations, the causes of their prosperity or adversity, their eminence or degradation, their happiness or misery, will greatly enlarge the sphere of useful knowledge, distributing among the people a liberal fund of valuable information, which will be to them an ever-springing source of enjoyment and usefulness.

GRADATION OF SCHOOLS. It is very gratifying to state that within the last two years, graded or union schools have been established in nearly one hundred and fifty towns and villages of this State, and that most of them are now in vigorous and successful operation.

The great advantages possessed by these schools over those established on the plan of the independent district system have been so fully tested by experience wherever the trial has been fully and fairly made, and were so fully set forth in a former report, that any further discussion of the subject at this time can hardly be deemed necessary.

1. More commodious school-houses, more eligible sites, and more ample playgrounds.

2. A reduction of the number of school-houses and teachers, and increased facilities for procuring teachers of a higher order of education and greater experience.

3. The introduction of a more judicious and systematic course of study, better text-books, and a less frequent change of them, and better methods of instruction and discipline.

4. Increased facilities for procuring and using to a much greater extent, chemical and philosophical apparatus, globes, outline maps, charts, and all other useful articles for visible illustrations.

5. Increased facilities for employing a competent superintendent to take the general management of the school, to enlighten the younger and less experienced teachers upon the various methods of imparting instruction, conducting school exercises, arranging classes, and managing cases of discipline.

6. Longer school sessions or terms, and greater uniformity in the general plan and operations of the school, and the consequent greater progress of the pupils from term to term, and from year to year.

7. Greater facilities for dividing the school into suitable departments, and for forming larger classes, but fewer in number, thus enabling the teacher to devote more time to each class, and impart to each scholar more systematic and efficient instruction.

8. Greater facilities for arranging the departments and classes according to the ages and attainments of the scholars, and for adapting, with skill and precision, the discipline of the school to the wants and capacities of those of any particular age.

9. The excitement and enthusiasm which a large class always creates in every member of it, not only during recitation, but also during the hours of study, by constantly reminding each scholar that many besides himself are engaged at the same time upon the same lesson, and that he must soon appear in their presence and measure himself, intellectually, with them.

10. The greater ease with which order and decorum are maintained, resulting not so much from the superior facilities for grading and classifying the scholars as from the smaller number of classes which each teache. is required to hear, and the consequent shorter intervals at which the periods of study and recitation will alternate, thus keeping all the scholars constantly occupied.

11. The greater ease with which the teacher and his scholars can be kept in sympathy with the subject of study and with each other, and the consequent greater interest which they will take in the recitation, and with which they will attend to every new illustration or exposition of the subject.

12. Increased facilities for forming in the pupils habits of diligence, and for securing a high degree of mental discipline, resulting from the steady and uniform progress with which they move on from class to class, and from grade to grade, thus training them habitually to regular duty and imparting to their minds the habit and the power of doing everything at its proper time, of acting systemati cally, and thinking consecutively.

13. The greater opportunity offered to each teacher for daily and systematic

preparation on the different lessons, resulting from the less number of subjects which he is required to teach, and thus enabling him to study the condition and wants of each class, and to enter upon the task of instruction not only with intelligence and skill, but with ardor and enthusiasm.

14. The facilities for employing a much larger number of female teachers, especially in the winter season, and thus securing to young children that peculiar influence and culture which females are so well qualified to impart.

15. The superior facilities for the successful prosecution of study, for hearing recitations and conducting all other school exercises, resulting from the fact that the ages, attainments and studies of the scholars occupying any particular room or department are nearly the same, and hence their exercises are never interrupted or their minds diverted from their studies, by the introduction of business in which they have no part or interest.

16. The incentives to greater diligence in the preparation of lessons, arising from the steady influence exerted upon the pupils by the sure prospect of promotion, beholding as they do, the moment they enter a graded school, an unbroken series of promotions before them, from the lowest class in the primary, to the most advanced class in the high school.

17. The new system furnishes increased facilities for economizing time and labor. Regarding what it accomplishes, a graded school possesses great advantages over a mixed school. No one who has witnessed a full and fair exhibition of the practical workings of both systems, will deny that in the former a teacher can instruct forty or fifty pupils more easily and more efficiently than twenty or thirty in the latter.

Let the new system, crowned with a High School, or a High School department, find its way into every neighborhood where the population is compact enough to admit of it, and let every township establish at least one High School as soon as the condition and number of the population will warrant it, and a generation will not pass before we shall have laid open to the world a vast increase of intellectual strength and energy. Then, indeed, will wisdom and knowledge be the stability of the times.

The secret of the great success which has so generally attended the establishment of graded schools, lies mainly in the fact that the course of study prescribed for each class and department is susceptible of being rendered so exact and the time actually required, with efficient instruction, to advance a class from a lower to a higher grade, so definite, that the teacher may justly be held accountable for failing to accomplish, within the time limited, the required work. Hence it is, that in such schools both teachers and scholars take such a warm and deep interest in their work, and labor with such indefatigable perseverance. The constant hope of promotion, and the certainty of it when deserved, urges with a strong stimulus, the pupils to unremitting diligence; and the teachers are aroused to greater zeal and fidelity in the discharge of their duties, knowing that their skill and faithfulness will be made manifest in the qualifications of the candidates whom they send to the higher departments of the school, and by the length of time occupied in imparting those qualifications. Hence it is that we see such marked increase in the efficiency, value, and comprehensiveness of the instruction imparted in these schools, as compared with what is exhibited in mixed schools.

PUBLIC HIGH SCHOOL. The facility afforded for engrafting upon the new system a High School, or High School Department, furnishes one of the strongest reasons for preferring it to the old system.

1. That the High School or High School Department, as a component part of a Common School system is worth more to the schools of lower grade than all it costs, independent of the advantages received by its actual pupils.

2. That admission to the High School is regarded as a most desirable promotion, operating as a powerful and abiding stimulus to exertion upon all the pupils in the lower schools, being regarded by them as the sure reward of persevering exertion.

3. That it arouses the dull, stimulates the indolent, and encourages the studious, by holding out to them the strongest of all honorable incentives to diligence in study, and uprightness in conduct; the assurance that if they effectually and faithfully improve the advantages offered in the lower departments, they shall have the privilege of receiving gratuitous instruction in the higher departments of learning.

4. That it reacts most happily upon the younger schools, by constantly presenting to them an example for imitation, and an object of hope and honorable ambition.

5. That it strengthens, energizes and adorns the whole common school system, inducing a greater degree of thoroughness, a better attendance, and more exemplary deportment in the school below.

6. That it opens to the poorest child an avenue by which he can be admitted to

the realm of knowledge, not as a *charity*, but as a right, imparting *free* education of a high order to hundreds of youth whose pecuniary means are wholly inadequate to secure it in private schools.

7. By bringing together, into the same school, children from families of the most diverse circumstances as to wealth, profession and occupation, it exerts a most happy social influence, enabling the child of poverty to feel the genial influence of our free institutions, and to learn that the road to usefulness, honor and happiness, is alike open to the meritorious from every class, and teaching the child of affluence to take his proper place upon the true platform of American society, and to depend for honorable distinction upon the proper cultivation and exercise of those faculties and powers which he possesses in common with his humble, but equally talented, school companion.

8. It enlarges the influence, extends the advantages, and raises in public estimation, the character of the whole common school system, giving thoroughness and expansion to the whole course of instruction, causing the people to take a warmer and deeper interest in its prosperity.

9. It helps to raise up among us a body of well educated teachers, and to excite among them a salutary emulation, by exhibiting in immediate comparison their aptitude, zeal and skill, as evidenced in the preparation of the candidates they furnish for the High School.

10. It takes the children of all, whatever their rank, occupation or circumstances may be, and sends them out into life endowed with such eminent advantages of education, and inspired with such principles to guide them in their future course that they will be a blessing to their day and generation, adorning their various pursuits with intelligence, enriching society with their discoveries, elevating and equalizing the rank and respectability of their widely different occupations, making industry honorable, and securing to labor its proper dignity.

11. An important and essential mission of the High School is to evoke genius, discover and call forth the latent talent of the young, to gather up from the humblest walks of life, even from the abodes of obscurity and want, many a gem of priceless value, to polish it, and then set it on high that it may shed its lustre upon the world.

EDUCATION OF CHILDREN AT SCHOOLS NEAR HOME. The new system affords to parents the important advantage of giving to their sons and daughters, without sending them from home, an education sufficient for any profession, business or station in life. It is a serious misfortune to be obliged to send children far from the parental roof, in order to give them a respectable English education; to place them beyond the reach of parental solicitude and admonition, and to expose them to the numerous maladies which may assail their health, and the alluring temptations which may impair and corrupt their virtue.

Deprived of the strong formative influence of parental care and control during the period when their characters are being most rapidly molded, it is no wonder that those who leave home in early youth to study in a distant school often contract habits which become a curse to them throughout the entire period of their subsequent lives. They are thrown among new companions. All are young; everything around them conspires to induce them to abandon all proper restraint, and give full license to every impetuous passion by which youth is swayed. What parent, that sends his son to a distant school, can be assured that he will not become an adept in every thing else but science. His child is away, and in his fond anticipations, he never dreams that dice, and cards, drinking, gaming, midnight debauchery, and every species of recreation and amusement, frivolous and dangerous, occupy his time, instead of sober, industrious study. The mild reproof of an affectionate mother, and the calm admonition of a kind father, can exercise no influence over his wayward course. If the pupil possesses strong moral principle to govern him, he may pass safely through the ordeal; if not, the stolen sweets of his student life must inevitably become the bitterness of gall in his future years. The strong and genial influences of home, with their myriad grasp upon the mind, are thrown away. His brothers, and sisters, and neighbors are not there to call the blush of shame upon his cheek at the very thought of a disgraceful deed. Deeds which, in his native town, he would never think of doing, and which, if done there, would bring down upon him the penalty of scorn and contempt, he can do with impunity when far away, and comparatively unknown.

The plan of creating high schools wherever the circumstances of the towns render it expedient, avoids all these evils and allows our youth to continue their education to the highest degree demanded by the masses, under the eye of parental supervision.

PENNSYLVANIA.

Annual Report of the Superintendent (Andrew G. Curtin, who is Secretary of State,) *of Common Schools. Submitted Dec.* 31, 1855. 351 pages.

This Document besides the report of the State Superintendent and the usual statistical summaries, contains the reports of 64 County Superintendents, full of information as to the condition and improvement of the common schools. These reports show the practical working of a gigantic system of common schools, including over 10,469 schools, 12,000 teachers, 528,000 scholars and an annual expenditure, including the city of Philadelphia, of over $2,000,000. But even these reports do not show the activity which now pervades the entire state;—they should be read in connection with the proceedings of County and State Associations of Teachers, of County Institutes, of State Conventions of the County Superintendents, as published in the Pennsylvania School Journal, edited by Hon. Thomas H. Burrowes—whose hand framed what there was excellent in the old system, and who is we suspect the main spring of the great school movement which is going forward with such large results, and greater promises, in Pennsylvania.

The State Superintendent remarks:

PAST DEFECTS OF THE SYSTEM. It is undeniable that the common school system of Pennsylvania had lost the prestige and hopes of its earlier years, and had disappointed the expectations of its friends. Its failing energies and want of adaptation to the great objects of its creation, seemed to portend its ultimate decay, unless animated by a thorough reform and an infusion of fresh vitality. The causes were obvious: radical defects in the organization of the system; and want of knowledge and energy in the administration of its local details—the latter resulting, in most instances, as a necessary consequence from the former.

In numerous instances, and in many of the school districts, the tax duplicate was withdrawn from the hands of the collector as soon as the warrant for the share of the district in the State appropriation was received and cashed, and no tax collected, no teachers employed, no schools opened, and the money appropriated by the State to sustain a languishing system of public instruction by common schools, applied to the repair of the township roads and highways, and other similar illegal purposes; or what is infinitely worse, transferred to the pockets of the directors themselves, as compensation for their official services. Warrants were sometimes obtained on vouchers manufactured for the purpose, and the money drawn from the treasury and applied to the benefit of parties having no official connection with the schools.

The payment of large fees to justices of the peace for legal advice, and the monopolizing of the school fund by the directors in liberal contracts with themselves to build and repair school-houses, (who were not always faithful to their covenants,) present still another phase of these financial embarrassments, which, while it is humiliating to the intelligence and integrity of our people to expose, may justify a passing notice in vindication of remedies adopted and the promotion of others proposed.

The selection of teachers from mere favoritism, or as relations of members of the board of directors, or, in an economical spasm, of low priced men; the total neglect of proper attention to the temperature, light, ventilation, furniture, apparatus, text books and surroundings of the school-room, produced in many districts of the State, schools that were but a melancholy burlesque on the cause of popular education; many of them were fitter subjects for the consideration of grand-juries than for the uses of their dedication, and highly injurious to the health of the victims statedly imprisoned within their walls. It is not surprising that as these abuses were beyond the reach of individual effort, and grew, as a consequence, out of the defects of the system itself, all who could afford it, carefully withheld their children from the common schools, under an honest impression that their minds, and their health, and their morals, could not be improved in such rural prisons. In short, a system of public instruction that should be in its integrity, the pride and glory of the Commonwealth, was rapidly becoming a burthen to her citizens, and a by-word and reproach within and without her borders.

LAW OF 1854. Such abuses and want of force called for legislative action, and led to the passage of the school law of the 8th of May, 1854. In providing compensation for secretaries of boards of school directors, and thus insuring the

services of more capable men, and faithful and true accounts of the transaction of the business of the boards—in requiring better security, and more rigid accountability from treasurers and collectors, and other incidental and valuable modifications, the law has been found to be highly salutary and beneficial.

But the great leading feature which distinguished this enactment, and the Legislature from which it emanated, is the creation of the office of County Superintendent, which supplies the necessary agency in the administration of the school law in the districts, and provides the Department with the knowledge and control of its operations. Although it is an office of limited powers, it has infused renewed life into the system, and has done more substantial benefit, in the short space of time it has been in existence, than any reform heretofore made.

COUNTY SUPERINTENDENCY. It has effected a useful adjustment of the business operations of the boards of directors, in correcting the deranged state of their finances, and in many instances in recovering money of the schools over looked or supposed to be lost. It has elevated the profession, and established more uniformity in the character and qualifications of teachers in theory and generally in practice; the incompetent and unworthy have been rejected, while the door has been opened wide for the admission of the meritorious and qualified, and a stimulus has been given to study and self-improvement. It is the great medium of connection between the department and the schools; and while it has produced unity and harmony of action between them, it has secured to the system power and efficiency hitherto unattainable. It has excited enlightened and zealous friends of education who have no official connection with the system, to renewed interest in its success; and bright hopes for the future are now entertained by many who had watched its uncertain existence and doubtful usefulness, with fears of its ultimate decay and abandonment.

The office is opposed by many who judge of every enterprise by the money it may cost, without regard to the results anticipated from it; but by far the fiercest opposition comes from those who are opposed to the cause of popular education at the public expense, and who strike at the vitals of the system through the office of County Superintendent.

GREAT WANT OF COMPETENT TEACHERS. In referring to the defects and wants of the system, the leading feature of every report emanating from this Department to the Legislature for twenty years, is the want of a sufficient number of well qualified teachers. It has been annually deplored as the great want of the schools, and obstacle in the way of progress. To supply the schools suddenly brought into existence all over the Commonwealth, with teachers qualified to discharge their duties, should have been the first step taken in the establishment of the system.

EFFORTS OF TEACHERS TO ELEVATE THEIR PROFESSION. First, school district associations were formed for mutual improvement. The eminent success of these soon created county societies, and county societies were elevated into the importance of Teachers' Institutes, with sessions of a week, exciting the sympathy of the friends of education and the emulation of the members; and, as the consummation of this spirit, during the past year in several of the counties of the Commonwealth, these institutes were followed by Normal establishments for the education of teachers, holding their sessions one, two, and even three months.

Teachers who work assiduously for four or six months, at the lowest wages for which they can be employed, should not be required to take from their scanty earnings money to defray the expense of three months' instruction in a Normal establishment, when they are fitting themselves for the discharge of duties in which the people are infinitely more interested than themselves.

The result of all these crude efforts for temporary expedients is, that they fall far short of the degree of skill and knowledge which the accomplished teacher must possess, before our schools can be expected to fill the full measure of their usefulness. Every good teacher; every intelligent board of directors; every locality, having had the experience of the improved methods of teaching from one of these Normal establishments, acknowledges this. They see that though much has been accomplished, much more remains to be done; and that no substitute for a regular professional training, extending through years, and embracing a complete course of study in all the branches necessary to illustrate those directly taught in our schools, can make the perfect teacher.

STATE NORMAL SCHOOLS. Normal institutions proper for the State, should embrace two departments: one for the improvement of the present teachers of our common schools, who may resort thither free of cost, for instruction and improvement during the recess of their respective schools. The other, a regular Normal department, into which young persons shall be admitted, to pass through

a regular course of professional training, for such a number of years as may be requisite to fit them for their profession. These two departments can and should be embraced in the same institution. They can be made to co-operate with each other, and hasten the great results contemplated. By the opening of the first, the present generation of teachers may be vastly improved in professional skill and efficiency; and the second will provide for a succession of teachers who will take their places when they retire from the scene of their labors, and who will raise still higher the standard of professional qualifications, to meet the growing demands of the age and the country.

COUNTY TEACHERS' INSTITUTES. The Teachers' Institutes now established, have contributed much to the improvement of teachers, and in elevating public opinion in educational interests. They have been sustained during the past year by the personal efforts and the severe pecuniary sacrifices of the County Superintendents and Teachers. Having proved eminently useful, they should be established in every county in the Commonwealth; they should be sustained by the government and assisted by appropriations of money from the public treasury.

The great success of such an experiment in the county of Chester, under a special act passed at the last session of the Legislature justifies and strengthens this recommendation.

SCHOOL-HOUSES. Under authorty of the Superintendent, Mr. Burrowes has prepared a valuable work on School Architecture, with drawings and estimates, which will change the whole aspect of these edifices throughout the State.

STATISTICS. The following summary is taken from the Tables in the Appendix, and does not include the items from the City of Philadelphia—which would greatly swell the aggregates.

Population in 1850,	2,311,786
Number of children between 5 and 15 years in 1850,	583,414
Number of School Districts, (Towns,)	1,622
Number of Schools,	10,469
Number of Scholars,	539,024
Number of Teachers,	12,143
Salaries per month, male,	$22,29
" " female,	$14,89
Amount of State Appropriation,	$159,554
" Tax levied, for instruction,	$1,354,937
" " to build school-houses,	$266,198
" " for fuel, &c.,	$110,383

We have read the reports of the County Superintendents with great interest, as well as the proceedings of the State Teachers' Associations for 1855, and 1856, and of the State Convention of County Superintendents—and from these sources of information it is evident that while great improvements have been made, and numerous and vigorous agencies are at work to extend and perpetuate these improvements, there is still evidence enough of small appropriations; of short school terms; of school-houses, old, dilapidated, inconvenient and unhealthy; of a large amount of irregular, and non-attendance of pupils; of candidates for teaching without the natural or acquired qualifications; of good teachers teaching without adequate remuneration and without parental sympathy and co-operation, and spending all their earnings in doing what parents or the public should do; of a great variety of text-books in the same study with pupils of the same attainments in the same school; of bad spelling, indistinct, and unintelligible (to pupil and hearer) reading, of mechanical processes in arithmetic, of a mere mechanical knowledge of grammar, of a confused kaleidoscope glimpse of the places and dates of history and geography; of schools without classification, without discipline, without results in the moral character and high aims of the pupils; of narrow, sordid, apathetic, belligerent parents; of scheming politicians who would pull down the whole system to make one round more in the ladder of temporary preferment for themselves. In the closing paragraph of the State Superintendent's Report' we say:

When the common school system of Pennsylvania shall have unfolded its vast powers; when a corps of trained and educated teachers to supply all its demands shall have taken the field; when the text-books used in the schools shall be wisely selected, and the school-house built on the most approved model; when its protection and progress shall be the first object of the government—then will all its mighty agencies to do good be felt; the public mind refined and enlightened; labor elevated; patriotism purified; our republican form of government fixed on an immutable basis, and the people crowned with its benefits and blessings.

RHODE ISLAND.

Annual Report of the Commissioner of Public Schools, (Robert Allyn,) *to the General Assembly, January,* 1856. 254 pages.

The Report of the Commissioner, with the accompanying tables and reports of the School Committees of the several towns, throws a flood of light on the practical working of one of the best systems of public elementary Schools in the United States. Rhode Island had a population in 1850 of 147,545, distributed throughout 31 towns. According to the estimate of the Commissioner the population in 1855, was 169,813, with 39,011 persons between the ages of 4 and 15 years. The following are the results of the operations of the system for 1855, so far as these can be set forth in figures.

SUMMARY OF EXPENSES AND STATISTICS.

Amount of money disbursed by the State to the several towns for the support of common schools,	$49,994.17
Amount raised by the Towns by their own votes,	62,564.89
Amount received by Towns from Registry and Military taxes,	7,923.41
Amount received from rate bills and district taxes,	11,721.11
Amount received by the towns from the income of other funds,	1,991.03
Amount expended on school-houses, in building or repairs,	16,001.56
Making the total, raised and appropriated, for Common Schools throughout the State,	$154,614.40
Amount expended for instruction alone in common schools,	131,675.98
Amount paid for the support of the deaf mutes at the American Asylum in Hartford,	483.33
For the Idiotic and Feeble-minded youth with Dr. Howe, of Boston, and Dr. Browne, of Barre,	250.00
Amount paid out for lectures in different parts of the State,	500.00
Amount paid for Teachers' Institutes,	300.00
Amount paid for the State Normal School in Providence,	4,225,13
Expenses of the system of public Instruction to the State, exclusive of the salary of the Commissioner, and the incidental expenses of his office,	160,392.86
Total number of scholars attending the public schools,	26,888
Total number of children of the school age, or between the ages of 4 and 15, is calcuted to be	39,011
Average number of scholars attending school,	18,998
The cost of instructing a scholar on the average throughout the State,	$4.90

And the cost of a scholar, according to the average attendance, is $6.93, which is a discount of almost 29 1-3 per cent, or a loss of that per cent on account of absences, the vast majority of which are entirely unnecessary.

The number of teachers employed in the state is 679; 275 males, 404 females.

Average of teachers' wages is, for males, $33.65, including board; and for females, including board, $17.96.

Number of Districts in the State, 384.

Number of school-houses, 378.

SIGNS OF PROGRESS, AND OF THE NECESSITY OF GREATER EFFORTS. The sums raised by the towns are every year steadily increasing. Against $62,564.89 raised by vote during 1854, for the support of schools during the school-year ending May 1, 1855, the towns voted to raise $77,004.89, for their portion of the money to support their children at school the year ending May 1, 1856, which is an increase of $14,400.40. The number of scholars in school is also greater by 1,015; but the average attendance is less by 906, a fact for which it is difficult to account. This shows a much greater disposition to appropriate money for the improvement of the schools, than to send the children to take advantage of

this increased liberality. The amount of money voted will, however, be found a very accurate index of the growing interest in the great work of education; and out of this praise-worthy disposition to enlarge the means of diffusing knowledge, there must soon grow up, in a community proverbially economical as ours is, a conscientious determination to reap all the benefits legitimately expected from the additional outlay.

It will be said, and much weight should attach to the remark, that many of the children between the ages of 4 and 15 are in private schools. While this is true, and serves to diminish the amount of "that barbarism growing up in our midst, by reason of the many who never attend school, or learn to read," it, by no means, speaks well for the democratic spirit of our citizens, or for the ability of common schools to educate the whole population. For if the whole number of children able to be in public school is not present, it must be inferred either that the parents lack the true public spirit to avail themselves of the means of educating their children provided by the people, and open to their common use; or that the schools themselves are still unfit for some classes of the community—for the rich and refined, or for the poor and destitute. The first named class may find, or pretend to find them unfit on account of the small unmber of branches of learning introduced, the meagre discipline obtained, and the unskillful manner in which their children are taught, or on account of the rude and uncouth manners there acquired, and the vicious and degrading influences of those with whom the pupils are daily compelled to associate. The second class may urge that they are virtually excluded by reason of the high price of rate bills and books, or by reason of the select character of the studies, the too exclusive attention to the higher branches, or by reason of the sheme which children poorly clad are apt to feel in the presence of those who are well dressed. It is believed, however, that in our community it is, in truth, neither of these reasons that keep the children from the public schools. For the course of instruction will readily adapt itself to the scholars who come. If these are advanced and prepared for the study of the higher branches, these latter can be taught well and efficiently. On the other hand if the scholars are ignorant and backward, the course of instruction, by a necessary law, lowers itself to their capacities and standard. And if children, who are well disciplined morally and trained in neat and virtuous habits at home, compose a majority of the school, and the parents, the school committee, and the teacher are resolute in the performance of their duties, the school will necessarily become a nursery for similar habits and virtues.

CAUSES OF ABSENCE. The indifference and carelessness of parents and guardians is one very prominent cause, both of absences, and of irregularities in attendance—an evil little less damaging to the progress of a school than total absence. Again, the very profitableness of children's labor, and the necessity that, if these are engaged at all in labor, they shall be regular in the days and hours of their labor, has probably been a fruitful cause of absences, and of indifference to the means of education. This cause in the rural districts withdraws boys from the summer schools at a very early age, and by compelling them to do many of the chores in winter, has contributed to increase the irregularities shown by the School Registers. In cities and in manufacturing villages this same cause operates to withdraw all the children, or nearly all. from the school at an early age, so that in some of these places it is impossible to find a child in school above the age of twelve or thirteen. Besides these causes, the incompetence of teachers, and the repulsiveness with which a few still contrive to clothe the school-room, tend to make children invent excuses for absence, and to multiply truancies to an alarming degree. Too little effort is expended to make the school-house and school-exercises pleasant.

These almost inaccessible causes of absence and irregularities do, nevertheless, eat away the substance of our benefactions to our schools, and destroy, in the bud, much of both the beauty and profit of that harvest, which we have a right to expect from the seed so plentifully sown by us beside all the waters.

REMEDIES FOR ABSENCE AND IRREGULARITIES OF ATTENDANCE. To remove them we must not seek them directly in the places where they seem to work, but in some remoter source. We must call public attention to their deadly influence, and awaken the community to an intelligent sense of their danger. We must discuss before the whole people, and beget in the public mind a thoughtful sense of the responsibilities resting on the present generation, obliging them, as they love their offspring, and seek for their elevation and progress in everything good and noble, to see to it that every child be educated thoroughly—and educated, too, in the schools of the people. For let us distinctly remember that, in a country like ours, founded upon the acknowledged equality and privileges of all mankind, there can be no permanent and long continued prosperity, but in making the people, in some important sense, homogeneous. Nothing can secure

this but our system of common schools, and the legitimate operations of our common republican christianity, which is their foundation and support. Knowledge and virtue, joined with refinement and grace, are the greatest of agrarian levellers; levelling upward always—not downward, and ennobling also—bringing the son of the humblest and poorest, upon the platform with the richest and proudest.

In order, therefore, that the 48 2-3 per cent of our children who are in our public schools, may best profit by their education, and in order that the community may obtain from this education the greatest benefit, it becomes a matter of high importance that the other 51 1-3 per cent also obtain their education from the same common source. It may be said that they obtain a better education elsewhere. Grant that some of them, who are at the best and most costly private schools, do receive an education which is, in many respects, better; grant that in these private schools they are taught the higher branches, and the accomplishments which it would not be proper to introduce into our common schools; and these children are not so well fitted for the whole round of republican duties, as if a portion of their training had been in the schools of the people. But the great mass of this 51 1-3 either receive no education at all, or they receive it very inferior in quality, and very infinitessimal in amount; and the ignorance, which they thus nurse and diffuse among the others, works to the injury and detriment of every other member of the community. In a village where three-fourths are well educated, and the other one-fourth are untaught, and therefore somewhat vicious, every one of the well-educated pays a yearly tax for his neighbor's misfortune, greater than if he had been annually compelled to support him at the public schools during the whole of his youth. It is the whole commonweal that ignorance and vice taxes, and nought but a common effort to educate, to moralize, and to render the community homogeneous, and a unit in all its interests and sympathies can remove or sensibly lighten this alarming taxation.

MANAGEMENT OF SCHOOLS SHOULD BE ENTRUSTED TO TOWN, AND NOT THE DISTRICT COMMITTEE. The school law provides that each town may manage its schools by the school committee, without the intervention of trustees. Were this the case, every district of the town would have the benefit of the counsels of the best men in the whole town; while under the system of district-trustees, some sections may be unfortunately located in respect to men, who are willing to undertake the office of trustee, and perform its duties. Were the town to manage all its district schools thus, by a central board or committee, there could be no possibility of a collision between those who hire the teachers and those who examine the candidates and visit the schools. The visitors would then always be informed of the times when the schools commence and close, and would feel more strictly bound to be present and discharge their very important duties as visitors and examiners. There would be less opportunity to favor relatives, and to foster petty neighborhood feuds, than under the present system of hiring by means of trustees. And, finally, the several parts of the town, and the children of all the parents would enjoy more nearly equal privileges, by a better distribution of the teachers, as to abilities and talents, than they can enjoy under any other system whatever.

Several of the towns have already adopted this practice, and it is believed that others would at once do so if they had the means of knowing its advantages. It would avoid many of the serious jealousies, now arising between the people of a district and the school committee, or or between the teachers and committee; and could not fail to secure a much wiser outlay of the public money, as well as greater efficiency in the administration of the whole system.

CARELESS AND ERRONEOUS SCHOOL STATISTICS. No just distribution of the public money can be made by the school committee to the several districts without these are full, explicit, and accurate; and no correct and valuable conclusions can be drawn by the Commissioner, or by the legislative authorities without them.

TEACHERS' INSTITUTES. Two Institutes were held—one with thirty-eight, and the other with one hundred and thirty-nine teachers. The exercises at these gatherings of teachers consisted of reviews of school studies, exercises after the manner of the daily recitations, and drills suitable to be given each day in the school-room. Lectures and public addresses on the various modes and forms of giving instruction, and securing the attention of pupils, and on the motives and appliances to be used in stimulating children to love knowledge, and form themselves to habits of due obedience and order, were given by several gentlemen of distinguished ability, and were of that practical and eminently useful kind, that could not fail to leave a deep and a profitable impression on the minds of all teachers whose good fortune it was to hear them. It is believed that no money which the State expends for the benefit of its schools accomplishes a better service than that appropriated to defray the expenses of these Institutes.

To keep the teachers, on the road of progressive improvement, in their own

personal character and habits, they must, like any other profession, be able to have frequent meetings, for discussing among themselves the great principles that lie at the foundation of success in their work. They must often, or at least sometimes, be brought in contact with the leading minds engaged in the same holy calling and drink in their spirit. They must, in some way or other, be enabled to see new methods tried, and to hear new theories, if such there be, propounded and examined. They must not always read, and study, and experiment in solitude; but must come into personal contact with others, and learn how they have studied, what they have read, and how their experiments have succeeded or failed.

It seems highly proper to suggest that the State, by its legislature, or that the several town committees, ought in some way to grant privileges to those teachers, who give up their time for a week, and cheerfully pay their expenses to and from these gatherings, in order that they may become more useful in the school-rooms where they shall hereafter labor. This consideration might be given in time, as is proposed in the State of New York, where a week spent at an Institute, and certified to by a county inspector, shall entitle the teacher to draw the wages of an extra week, from the treasury of the district where he shall be employed; or it might be in the form of a higher certificate, which would carry with it assurances of greater zeal and enthusiasm, if not of greater literary and moral qualifications.

STATE NORMAL SCHOOL. The success of the experiment in organizing and sustaining the State Normal School, in the city of Providence, has been very gratifying to the friends of the measure. The teachers have been models for their profession, and they have successfully accomplished a work for which they deserve the gratitude of the State.

It went into operation on the 29th day of May, 1854, and has since that time been well patronized and highly useful. The number of students admitted by examination has been one hundred and eighty, one hundred and six of whom have left the school—most of whom are now engaged in teaching in some part of our State.

The course of instruction at this school is not designed very materially to extend the scientific knowledge, which its pupils are expected to have gained elsewhere before they enter its walls. It consists in the larger part of thorough reviews, in the exact manner of the ordinary school recitations for scholars in our common schools, of the common branches of English studies. Thus each recitation becomes not only a lesson for the scholar to learn and recite, but a practical example not only of what he must teach in his own school hereafter, but an illustration of the method in which it must be presented to his classes.

The effect of the graduates of the Normal School is already felt to some extent for good upon the teachers of the State. They have gone abroad into various schools, and by coming in contact with other teachers, and by making popular the methods of instruction learned in the Normal School, they are gradually but surely causing the standard of attainments in school teachers to rise, as well as the standard amount of duty they shall be required to perform. If such an influence begins to be apparent within two years from its commencement, we may with certainty expect that its benefits will constantly increase till all parts of our State shall feel it, and be made better thereby.

COUNTY INSPECTORS. The law authorizes the Commissioner to appoint in each county, certain County Inspectors, who may grant certificates of qualifications to teachers, and may also visit schools, and make report to the Commissioner; but the law does not very strictly define their duties, nor allow them any compensation, or even any authority. During the past year an attempt was made by means of meetings and consultation among the Inspectors to find out ways of making the office much more efficient. It is very apparent that if the schools of any county, or a few adjacent towns only, were visited by a single competent person, great good would result at once.

There might thus be diffused through a whole county, the valuable suggestions and experiences of long tried teachers and overseers of schools, and the effect of this might be felt at once in every department of the work. If a sum of money were set apart for the visitation of the schools of the State, it is believed that it would do more to introduce uniformity and efficiency into our system than any other measure that could be adopted.

Our schools are now so various that the advantages of the children of the State are by no means equal. By looking over the tables it will at once be seen that a scholar in Providence can enjoy the advantages of a master worth $100 per month, or of a female teacher worth $23 per month, while in Kingston the children of the State must be content with a master at $25, or with a mistress at $15. The children of Kingston need an education as good as the children of Providence, for they will many of them remove to Providence, and do the business of

that city. And the State apportions its money in part according to population, and in part according to the number of districts, so as to equalize privileges as nearly as possible. A less amount of money will give as good schools in Kingston as in Providence. But in order to produce this result there must be as good and as efficient supervision, and as much intelligent study and comparison with the schools of other places.

PARENTAL CO-OPERATION. There is great danger, lest while we provide by law for the support of schools, and make them free to all who are unable to pay the pittance of tax required, we at the same time emphasize so little the parents' duty in connection with the education of his child, as to leave those who reflect superficially, or who scarcely reflect at all—(unless under the stimulus of some active discussion or exhortation)—to suppose that they have no other duty in the matter but to provide school-houses and books for the children, to supply them with clothing, and to allow them the whole or half of the six hours' daily time allotted to the school. No more harmful notion could be lodged in the minds of the members of a community; and it can breed nothing but mischief. In order to have the school perfect, there must be certain previously existing conditions.

A healthful tone of public sentiment must be maintained in relation to the amount of time allotted to the children attending school, for their studies at home. There must be, in some sense, a mutual understanding among parents as to the studies proper to be introduced into the school-room; and some general consent as to the punctuality of the scholars, and as to the uniformity of the time of their arrival at the school-room. There must be a tacit agreement, at least, as to the authority mutually devolving on the parents and on the master, to see that children come and go directly to and from the place of school, as well as to whose business it is to note and to attempt to prevent altogether the little truancies so liable to occur, especially when the sports and pastimes of boys are unusually tempting. If a neighborhood has not, in some way, settled these important matters, and arrived at some well defined and accurate notions and principles of action, the best school will always show numerous occasions for disorder, or for loss of time and idleness on the part of its scholars. And teachers, in their meetings, in their associations, in their institutes, in their magazines, and in their daily intercourse with parents, guardains and others, may discuss and lecture, may exhort, entreat, reprove and argue, as much as they please, and still the evils can not be cured. The simple truth is, the evil lies away from the sphere of the teacher's influence. As a teacher he can not touch it. All that he can do to remove it, he must do as a citizen, or as a member of the offending or neglecting community. While he is a teacher, he has other duties, and must perform them. This work of manufacturing such a public opinion, of organizing the necessary conditions of good schools, belongs to every member of society, and a portion of it devolves upon every parent, however humble, or poor, or distant from the school-house, or however illiterate, or even debased.

OUTWARD AND INWARD ADORNMENTS OF THE SCHOOL-HOUSE. Parents must see to the school-house—that its internal arrangement is excellent, and that it is at all times neat, and well supplied with maps, blackboards, chalk, brooms, dusters, and every necessary appendage for hanging cloaks, hats, bonnets, and for securing books, &c. It should be a delightsome room, and in place of the naked walls, innocent of all attempt at ornament—except it may be the literal "charcoal sketches" of some rude-minded boy—there might be good and tasteful engravings; a few of which, at a small expense, might adorn every school-room. How elevating and how transforming would be the influence of such an engraving as a portrait of Washington, or of one of Cole's beautiful pictures, the "Voyage of Life," looking down, always like the descent of the Holy Spirit, upon the young souls of the scholars! They could not look upon these noble things, with their honest and penetrating eyes, without opening their yearning hearts wide to receive the divine beauty of Truth, and Honor, and Virtue, that glows and almost burns in sublime works of art. It may be said that the scholars will not respect these, but will damage or destroy them, and thus encourage the spirit of recklessness, wanton mischief and destruction. But this has not been found to be the case where they have in some degree beeni ntroduced and cared for. The teacher can do something to produce such a state of things in his school as shall make it safe to introduce such ornaments, but it is the people of the district that shall elevate the general public sentiment, and shall make it necessary to obtain them, and preserve them from harm.

Again the people of the district can plant trees and shrubs about their school-house, and they alone can induce their children to avoid doing injury to their young and flourishing beauty; and thus make the spot to which their children

shall daily resort, a place crowned with all earthly loveliness and grace. There is, we know not why or how produced, an influence in the outward surroundings of childhood, that moulds and fashions character. The aspects of nature, the works of art, that the infant mind looks upon—that his heart clings to—have an almost omnipotent power to make his tastes; and these tastes of his are so closely akin to his moral moods as to do much towards making him virtuous or vicious. If, therefore, parents and the inhabitants of a district would secure their children as much as possible against the early and more insiduous approaches of vice and crime, let them all combine to make the school house a "thing of beauty," and therefore to the young scholar "a joy forever." Let it be a spot that in his memory shall never become dry and barren of delightful associations; but a spot where unfailing springs of purest thoughts shall always well up; a spot the thoughts of which shall in the remotest years not only bring to him a remembrance of childlike innocence, but which shall even, in the midst of a career of sin and crime, remind him of truth and holiness, and tend to call him to a sense of honor and duty.

LECTURES ON EDUCATION. The State now appropriates annually from its General Treasury the sum of five hundred dollars to defray expenses of lectures and addresses on the subject of public education and common schools in different parts of the State. Rev. Mr. Vail, of Westerly, and others, have been paid for lectures in all the counties except Bristol county, and it is believed that the influence of these lectures has been very satisfactory.

WANT OF SUITABLE TEXT-BOOKS. The subject of text-books is a fruitful one both of annoyance to teachers and of expense to parents. Perhaps all the other sources of complaint put together are not so fruitful of ill feeling and so really injurious to the improvement of our schools as this one alone. Scholars come to the school-room, with each an old book, different from any other book on the same branch of study in the whole school. Readers are quite as numerous as the classes, if not as many as the families in the district. A half dozen sorts of Arithmetics give a great variety in the examples for practice, and in the mode of carrying on the numerical operations. There are almost as many Geographies as pupils in the study—some of them with atlases, some without them, some of them of very recent date, and others of them having served the fathers and mothers of the present generation of scholars. As to Grammars, Murray still holds his place in some schools, in the midst of a whole host of reformers, who quarrel with him and with each other. While Spellers and new Spellers, Definers and Revised Definers, are as plenty as the frogs were in Egypt, and quite as vexatious. And smaller books, Primers, and Improved Primers, Child's First Books, and Children's Pictorial Primers and Readers, all crowd into the peaceful arena of the district school, to do over again "the battle of books," and re-introduce the confusion of Babel, without the possibility of a Babel-like dispersion. But still another difficulty arises from the multiplication of new editions of the same book. A very popular school-book, to name which would be easy, has passed through not less than eight changes within the last ten years; and it is almost as impossible to use in the same class any two of these, as it would be to use books by different authors. Thus we find several versions by each of several authors on almost every branch of school study, and in many cases the disorder is multiplied by first, second and third edition, revised and enlarged, of each of these versions. How can scholars be graded and classified, and be made to move on at an equal pace, and with pleasure, rapidity and uniformity in such a state of things as this? And how can a teacher who enters such a school to remain only four months, be expected to do much for his pupils' advancement in knowledge?

It may appear to be almost a betrayal of confidence to allude to the very distressing state of things in some of the schools by reason of the want of books really fit to be used. No scholar can successfully study his lessons and pursue his tasks with real interest and satisfaction to himself or to his teachers, unless he is supplied with books in which he can find the whole of his lessons, in reading, spelling, and reciting. It should be a part of the school committee's business to see that parents do not thus defraud their children of the means of acquiring a perfect education, provided for them by the commonwealth. The law provides, and ought to provide to the very poor, the means of purchasing text-books for their children at the expense of the town treasury, and if any parent who is able to purchase for his children neglects his duty, the school committee ought to have the power to order books for his children, and hand the bills over to the collector of taxes to be collected as the ordinary taxes of the town and State are collected. The truth is, that in a large class one scholar unsupplied or ill-supplied with the proper text-book, will be a serious drawback on the whole class for the entire term of the school. He will be a broken wheel in the midst of the other-

wise perfect machinery, and will, in spite of all the teacher's labors, be a clog to the end of his work. The law ought not to allow the avarice or poverty of any single individual, or of any number, thus to impede the progress of all.

What then can be done to secure at once economy to the parents in the expense of buying books, and uniformity of authors and editions in the schools?

Some very obvious methods, aside from any change or addition to the school law, at once present themselves. One is for each town to secure the services of a school committee, firm, intelligent, judicious, and thoughtful, and to continue them in office from year to year, giving them instructions to secure uniformity of books in *all* the schools of the town, and also instructing them not to make a change in the books they may select, without a vote of the town, until they have been used at least three or five years. This would suggest the propriety of greater care in examining before a book is introduced, and it would conduce to permanence in the usage; while at the same time it would prevent the so frequent, the so impertinent, and the so unprincipled intermeddling of book agents with the school committee's business. It would also be a stimulus to the visitors and examiners of schools, to insist that all the schools in town, when public—(no matter how it might be while they were private)—should use the prescribed books. This would be a great step in the right direction, and would add vastly to the efficiency of our school system.

Another measure tending to the same end, and almost identical with the one already named, would be to place all the schools of the town directly under the charge of the school committee, according to the 19th section of the school law. The committee would then hire all the teachers, examine them all, converse with them, visit their schools, and, in short, control the whole of their operations. The schools would then of course easily be made uniform in many things where uniformity is so profitable.

Another method, adopted in some towns, is for the town to appoint an agent, who shall purchase and take charge of the books for the schools of the town. These books are then loaned to the scholars, each one paying, or the town paying for him if poor, a small sum as an entrance fee, for the use of his books. Thus the town owns all the school books, and receives pay for them by this small term-tax. In such circumstances the temptation to change is comparatively small, and the cost to parents is uniform and insignificant. If every town in the State would adopt this mode of supplying its schools, but little more could be desired.

It can hardly be doubted, but that the cost to the whole people of the State would be much less, if the books were all bought by the towns, or by the State itself, and the money to pay for them raised by tax on the property, and complete uniformity required in all the schools, restricting changes to particular times in each of the school studies. Then, if it were thought best, an admission fee for the use of these books, could be taxed upon the scholars, and those unable to pay could be relieved from it by order of the school committee, and their fees paid out of the town treasury. As families so often move from one town or county of the State to another, some system which should secure uniformity throughout our whole territory would, of course, be best for the entire community. This would relieve many of the school committees and teachers from the almost intolerable nuisance of such book agents as travel about to find fault with every treatise on a particular topic, except the single one of which they happen to be the venders. Book agents may have accomplished some good; and new authors by their zeal to distribute their works, may do something to keep alive an enthusiastic and an awakened attention to new and improved modes of presenting each topic of school study. But this is when they are engaged about their legitimate business of removing the very old, imperfect, long-used, and therefore uninteresting books. On the contrary, where they attempt, for the sake of their own emolument, to remove from the schools books lately introduced, and of acknowledged merit, simply for the purpose of introducing their own, they become real nuisances, and their pertinacious persuasions are among the most serious of those annoyances that beset the life of a school officer.

REPORTS OF SCHOOL COMMITTEES SHOULD BE PRINTED. The law obliges the school committee of each town to present an annual report to the town meeting, of the state of the public schools for the year then last past; and it requires that this report shall either be read in open town meeting, or that it shall be printed for distribution throughout the town; and the law allows the school committee to reserve a sum not exceeding twenty dollars for the printing of this report. This sum is not generally sufficient to print and distribute as full a report as ought to be made, but it is believed to be as large as any general law of the state should authorize. The towns, however, in some cases, have paid for printing the school committees report out of the ordinary revenues of the town, and this is undoubtedly the proper way.

This report ought to go into the family whence every scholar comes, and should be then read by the mothers, by the elder sisters and brothers, and by the scholars themselves. The teachers ought to see it. And it ought to be sent to every other town in the State, and often to towns in other States; and thus it would bring back in exchange a large variety of valuable statistical and useful information, which could not fail to suggest useful improvements to the committee. The amendment to the law passed at the May session, 1855, obliges each committee to transmit to the Commissioner of Public Schools a copy of their annual report as well as the returns.

Moral Instruction. Unless the attention of school teachers and school committees is called to this important element in our school education—instruction in the elements of practical morality—we may well fear that no power can save our population, educated in the schools and made keen-sighted, from being more potent for evil than for good. It would be well for us to recur to the fundamental principles of a good education and re-enumerate them, and if need be, re-classify them; putting virtue and obedience to law above mere intellectual acumen or brilliant genius, and forming the ideals of excellence for our children's contemplation on the models of upright goodness, and patient continuance in right acting, rather than on the amount of honor or emolument gained.

That it is a State's duty, and the true object had in view by any system of public education, to make a virtuous population, will hardly be doubted. Indeed, the expenditure of the public money for any system of state schools, can scarcely be justified on other grounds than those of self-preservation, and the duty to promote the general prosperity of the commonwealth. Ignorance does clog the wheels of enterprise, and fetter the steps of all improvement; and when men unite into a community they do it partly from an uncontrolable instinct of their natures, and partly from a desire to possess and enjoy certain advantages and privileges which in a solitary state they could never have had. They must then, after they have thus united, seek, by all lawful and proper means, to preserve their union, and to promote most successfully the ends desired. They have therefore a right, nay, it becomes their imperative duty to encourage the spread of intelligence and the repression of ignorance. But ignorance is not, by a hundred-fold, so deadly a foe to the quiet and permanence of a society as is vice; and hence the duty of the state to suppress this most destructive of monsters. The penal laws all proceed upon the supposition that it is a solemn duty to punish the overt act of crime and vice. Is it not then a duty to prevent these? And this can be done partly by education, if that education embraces suitable subjects, and is imparted in a proper manner. The right of a community to take measures for its own self preservation, therefore implies, and carries along with it the duty, to educate its children, and save them from both ignorance and vice—the one of which benumbs and stifles, the other of which corrupts and blights, whatever might be good and noble.

To make our schools then what they are intended to be, the conservators and stimulators of all goodness and enterprise, they must be made redolent of moral influences; they must be at all times filled with the all-pervading presence of virtuous instructions. It must be the teacher's duty to study daily in what manner he can best form his scholars to the manners of good, law-abiding citizens, and brave-hearted, energetic defenders of the weak and defenceless. He must remember that no external ornaments of learning—no mere polish of refinement—can atone for the possession of a debased and an unworthy soul. We must insist on this high unsectarian moral instruction in all the school rooms which the state sends its money to support, and its officers to oversee. We must insist that a moral character is the first requisite in a teacher, and that an ability to teach the same morality, is a matter of higher importance than any amount of merely secular knowledge.

Books of Reference in each School. Every school room ought to have a large and correct Atlas, or a set of well prepared Maps and Charts—such as are in use among men of business, and a well digested and arranged Gazetteer. No money could be better used than a small sum expended to procure for every district school an Encyclopedia, and a Dictionary of Arts and sciences; for these would show something of the extent of the world of knowledge to which the school is designed to introduce the pupil, as well as the mode of consulting original sources of information, and would form his mind to habits of diligent investigation, and to habits of independent and self-reliant thought. And the grand object of all education, both in the school room and out of it, is to elevate and confirm in strong, intelligent and enterprising truth and goodness, the soul of every person in the community. These would not be used for the ordinary purposes of recitation, but for reference in the reading lessons, in the arithmetical problems, and in

the general exercises of the school. The scholar would then learn how to use these things to verify the assertions and statements of his school books, and to correct and supply their deficiencies, and thus would be doing exactly what he will be called to do almost every day in his future life.

Besides these books, there should be in every school room a full and authentic standard Dictionary of the English Language, and the scholars and teachers should make daily and hourly use of it. This is as necessary as a blackboard and chalk. It should be used to explain the meanings of words, to settle disputed questions of orthography and pronunciation, and to stimulate inquiry and to secure and encourage accuracy in all things. The Commissioner feels no hesitation in saying that no Dictionary yet published can sustain a thorough comparison with that of Noah Webster, revised by Professor Goodrich, of New Haven. There should also be in the school room, and easy of access to all, a good Biographical Dictionary, and this would be found especially useful as a teacher of a noble practical morality by examples—that method of nature so pleasing to all—so profitable, especially to the young. These Maps, Charts, Atlases and Books of Reference ought to be indispensable appendages to every school room. And it is believed that it as much the duty of the State to aid its rural schools, and its city schools in procuring them, as it is to aid in giving to these same schools good schoolmasters.

If these were bought by the State in a quantity sufficient for all her schools, and were sold to such districts as would pay the one-half of the wholesale price, the actual expenditure on the part of the commonwealth would be comparatively trifling, and the benefit would be incalculable. It would be just such a measure as would infuse new vigor and energy into the cause of education. It would instruct the teachers in a new and a fresher method of teaching. It would give a new direction to the thoughts and to the studies of the pupils. And it could not fail to make our system of education conform more exactly to the wants of a practical life.

PUBLIC SCHOOLS UNDER A DESPOTIC AND A REPUBLICAN GOVERNMENT COMPARED. In Prussia, [and to some extent in every European country] the government prescribes the books, fixes upon the studies of the classes, insists on marking out the duties of the teacher, and decrees the proper mode of religious services at the opening and closing of the duties of the day. In this way the means or privileges of education are provided for the people, who have no other care than simply to see that the children are fed and sent daily to the school. The officer, responsible to the central government, paid by it, instructed by it, and making his only report to its head, takes care of everything else.

The policy of this country is to leave it as much as possible to the people themselves. Hence the highest authority that presumes to lay its hand upon the means of educating the people is the State Government; and this touches it only as the people themselves direct. And even this government gives very properly and very philosophically the whole power of managing, conducting, and bringing to perfection these schools or this education, to the people in their municipal capacities as towns or as districts. Thus the whole necessary and essential work of education falls entirely upon the people, in their minutest and most original assemblages. All this implies the necessity that the whole people—not some few far-seeing and philanthropic men—shall have some correct and definite notions of what the school is designed to accomplish, and also of the best and most direct manner of accomplishing that object.

WHAT IS EDUCATION? The word Education is the highest of a series of terms all implying something in common, yet expressing very different ideas. The word improvement is used of whatever grows gradually better, as of fruit, of a field, of stock, or of a man. We use it where the thing in itself, either with or without foreign assistance, so changes as to be reckoned of a better quality, or of more worth than formerly. The term cultivation has an import somewhat more dependent on a foreign agency. Thus a field is cultivated—an inanimate object made better by an extraneous agency. We speak of training a dog or a horse. This is where the object is intelligent and has a will of his own. Then when he becomes better fitted for another use, we say we have trained him. Again we speak of disciplining soldiers, and we mean that we so exact obedience and orderly movements, as to compel beings with free wills to move with the regularity of machines. But education, in some sense, includes each of these, embracing improvement, cultivation, training, discipline, and instruction, together with a higher idea superadded—of self elevation developing individual characteristics.

THE RHODE ISLAND SCHOOLMASTER. The Commissioner of Public Schools, assisted by the Principal of the Normal School, and other teachers, publish a monthly periodical devoted to the subject of present and constant interest to the schools and the family.

SOUTH CAROLINA.

In the absence of any official or legislative document respecting the "Free Schools" of South Carolina, we introduce copious extracts from a "*Speech of C. G. Memminger, Esq., on the occasion of inaugurating the Common School System, at Charleston, July 4, 1856.*" This speech announces the beginning of an important change in the school policy of Charleston, and if successful, as it will be, if properly sustained even for a single year, in the school policy of the State. The change is from a system of schools, if not avowedly, at least practically for the poor, to a system of schools for all classes, the rich as well as the poor—from pauper to public schools. It is the same change which is now going on in the public schools of Norfolk, Savannah, and Mobile, and which has already taken place in the schools of New Orleans, Memphis, and Nashville—a change by which the public schools of all the large cities of the United States, in the North and the South, in the East and the West, are beginning to assume the same general features, and exhibit the same gratifying results—schools in which the children of the rich and the poor are enjoying the common advantages of the highest intellectual training. These schools are not perfect even in cities, where the system has been in operation for the longest period, and under the wisest administration and the most liberal appropriations, but they constitute the most satisfactory portion of our American system of Popular Education, as we shall have occasion to show in a review of Public Schools in the large cities of the United States, similar to that which we are now giving of the State systems.

We cannot better exhibit both the old and the new system than in the words of Col. Memminger.

As far back as 1811, our State announced the proposition that every citizen was entitled to receive from the State the benefits of education. A fund was provided for this purpose, but at the same time it was enacted that if it should prove inadequate for all applicants, preference should be given to the poor. This enactment has, in my opinion, been the cause of the failue of the system. The fund originally provided was small, and was entirely absorbed by the preferred class. The rich were thus excluded, and, the benefit being confined to the poor, the schools degenerated into pauper schools, and pupils and teachers descended to the grade at which they are now found throughout our State.

No one, unless urged by necessity, would accept an education which could only be granted as a charity. The middling classes of society were unwilling to stigmatize themselves by a declaration of pauperism, and the result has been here, as everywhere else, that schools for the poor have signally failed in the main objects for which they were instituted.

Within a few years, the State has endeavored to remedy the evil by increasing the fund. But although this has widened the access, particularly in Charleston, yet it has not reached the true source of failure. It is vain to look for substantial improvement, while at the entrance of the school, a confession of pauperism must be made. Try the same experiment with any other educational institution. Let it be required that no young man shall find entrance into the South Carolina College, but upon a declaration that his parents are unable to educate him. Such a regulation would be fatal to its existence—its whole tone and character would be destroyed; and if enough of those who could receive such a bounty, could be found to secure the continuance of the college, they would soon lose consideration in the community, and professors and students would descend by the same steps which the Free Schools of the State have taken.

The speaker states that while successive Governors, and representatives in the Legislature from all the rural districts in the State, pronounced the system a failure, Charleston was generally excepted; but on examining into the condition of the schools on his appointment as Chairman of the Board of Trustees of Free Schools, he was obliged to pronounce against the exception. "I found the boys themselves, as well as the community, holding the schools in disrepute, and the grade of education so low that the most inferior private schools stood higher in public estimation."

The remedy which we propose to apply is no untried experiment, no Utopian theory. We do not profess to have discovered any new system of education, or to have invented processes which dispense with the old beaten paths of industry and perseverance. There is no royal road to the treasure-house of science, but there are appliances, aids, guides, which will keep the youthful votary in the proper path, and will encourage and direct his labors. We propose to introduce a system of public instruction, which has been perfectly successful wherever it has been tried.

By an act of the Legislature, the Board of Commissioners is authorized to levy a tax of about $10,000 upon the citizens of Charleston for the erection of school-houses and other purposes connected with education. With the funds thus raised, the board have erected the school-house in St. Philip's street, in which they propose to introduce the system of common schools. The building will furnish accommodation for about 700 children. On the first floor is the primary department for children of both sexes under nine years of age, who are to be taught the first rudiments of education. On the second floor is a grammar school for girls, in which the education of girls is continued to the highest point of English education reached at the private schools, with needle work and singing. On the third floor is a grammar school for boys, in which the higher branches of English education are taught. The house is so arranged that there is no communication (except for the teachers,) between the boys and girls departments. The whole establishment is under the control and superintendence of a male principal, who has separate charge of the boys' grammar school, with a corps of teachers under him. The girls' grammar school is under a female principal, with a corps of teachers under her; and the primary in the same way, is under another female principal. Each department therefore, while enjoying the benefits of the skill and experience of the male principal, is conducted with the energy and advantage of separate schools. And it is apparent, that whether the building be used for the new system or the old, it is an economy of the public funds to make a single building serve the purposes of three.

Into this school the board propose to invite our fellow citizens to send their children in common, without distinction of class, that there shall be no discrimination between rich and poor, and that the same thorough education shall be given to all the children so long as they remain in school.

After showing the expense of supporting this common school, over the amount received from the State appropriation, ($75,000,) and realized from the tax authorized by law, will not be great, the speaker proceeds to set forth the advantages of the new arrangement.

1. It will extinguish the causes which degrade the existing schools. If the middling and better classes of society come into the schools, this alone will at once elevate their tone, and, by affording a higher grade of attainments, stimulate both pupils and teachers. Instead of having the school emptied of its pupils to go to trades as soon as they can read or write, there will remain a class of pupils who will continue at school until their education is complete. The teacher will have before him an object worthy of honorable ambition, in advancing those pupils, and the pupils will have constantly before them others more meritorious still in the advance, urging them on to energy and perseverance. The whole cause of education will thus be advanced in every avenue.

So, too, the private schools will be compelled to keep in advance of the public. The teachers, as a class, will be affected by this same impulse, and their characters and attainments become more closely examined and appreciated.

2. Such an association between the rich and poor tends to produce a better feeling in the community, and is more in conformity with our republican institutions. The children of the rich are rescued from that spirit of self-will and arrogance, which deference from servants and dependents produces, and to acquire at an early age that consideration and respect for the opinions and feelings of others which is so commendable in any character. On the other hand the poor are cured of that spirit of envy and jealousy which is apt to be engendered by the perception of benefits enjoyed by others which are denied to us, more especially when these others repel and forbid their approach. All classes of society by this means soon learn to estimate each other not according to external circumstances, but according to intrinsic worth. The boys who meet at school lose sight of everything but each other's position and proficiency in the school, and merit takes its place just where it should. If you would see an exemplification of this, look at any college in which the rich and poor come in promiscuously, and the effect upon the students is chastening and salutary.

3. It is a singular fact that under the present free school system the persons who pay the tax for education are excluded from any participation in its benefits. While

this may not be regarded by the few who have abundant means, yet there are many who are called on to pay the tax whose means are not much beyond those who are its recipients, and who may regard it otherwise. Nay, it no doubt often happens that those who receive the bounty are better off than those who pay. A conscientious and worthy parent, who is barely able to educate his child, may not feel at liberty to send to the public schools, whilst his less scrupulous neighbor may not hesitate to save himself the tuition of his children. Thus the system works injustice to both rich and poor. On the other hand, the common school equalizes the whole matter. It affords to the tax payer a participation in the schools; and if he pays more than his poor neighbor, he has the satisfaction of knowing that in the education of his neighbor's child, he is rearing a protector instead of a despoiler of his own property, and is increasing the productive capital of the State.

4. The common school system brings to its administration the whole strength of the community. When the children of every parent are brought into a common school, it becomes the interest and duty of the parents to see to its management. So long as the school is a charity, its recipients cannot complain; and the contributing part of the community feel too little interest in pauper children to go and watch their progress and the state of the schools. The result is that everwhere such schools are neglected. On the other hand, common schools become a great interest, awakening the attention of the whole community. The most efficient men are selected to take charge of them, and thus by a very simple process of self-interest, the great mass of the community derives an equal benefit.

5. It will be naturally asked, how is it that those common schools can give any better education than the schools now organized? We do not undertake to say that if a private school were organized with all the advantages of abundance of good teachers and the aids to teaching used in the best schools, that the public schools would afford a better education; but we say that very few private schools ever have been or are so organized. Those of us who are parents know that we are obliged, in a great degree, to be ourselves the teachers of our children, although we may send them to the very best schools. Others know that it is almost impossible in our city to get a first rate English education without taking with it Latin and Greek, whether it be desired or no. Now the common schools which we propose will relieve these difficulties, and at the same time will remove many of those which now embarrass the free schools.

The chief instrument by which this is done is the more perfect classification of the pupils. Take, for instance, the 200 pupils in the boys' grammar school; they can readily be divided into five classes of forty each. From so large a number as 200 a class of forty can be selected at precisely the same grade of attainments, so that a teacher can readily teach the whole number together. There are four class rooms on each floor of the school-house, besides the large room, so that five classes can carry on their recitations and be taught at the same time, without interfering with each other. Each school thus affords the advantages of five separate schools, and to far greater advantage. For it is obvious that in any other school, unless it should be classified as thoroughly, it would be impossible to have all the scholars engaged in recitations and class teaching at one time.

6. Another very great advantage derived from this system is the employment of a considerable number of young ladies as teachers. The higher moral instincts and the more refined taste of females, together with their patient and sympathising nature, fit them in an eminent degree for teaching the young. Men generally arrive at their conclusions by processes, while women, by a kind of intuition, reach conclusions which in matters of morals and taste are seldom wrong. In all teaching other than the exact and mental sciences, (if the latter may be so called,) women make, perhaps, the best teachers. Unfortunately for them, they have but few modes by which to obtain an honorable independence, and even this occupation of teaching has been taken from them. The consequence is that there is but little inducement to women in the middling classes of life to seek a higher education. We propose to change this; we propose to employ young ladies in all the lower departments, both for the boys and the girls, and in order to fit them for the occupation, we propose for the present to instruct them by the principal teachers; and, for the future, we propose to the State as part of a general plan, the establishment at Charleston of a Normal School for the education of teachers. This element in our common schools will enable us to procure teachers at a much lower rate than if we were obliged to employ men throughout, and will bring education everywhere within the reach of ordinary means. Not only will young ladies find employment in our schools, but whenever the system shall extend to the interior, (as it certainly will,) those who have been trained and have been found competent, will receive offers to become principals of new schools, and thus an object of honorable ambition will be offered to the young ladies of our city.

The speaker next proceeds to notice the objections made to the system of common schools.

First, it is urged that contact with the children now in the free schools, will contaminate those whom we invite to come in. Unfortunately for mankind, vice is not confined to class, and those who have been at school or college, have only to refresh their memories, and this objection will disappear. Who have been proverbially the bad boys or dissipated young men? Let every one answer from his own observation, and it will at once appear that riches or station furnish no security against vicious contact. At every school the danger must be encountered in some form, and experience has proved that it is not greater in common schools than in private. In fact, the numbers and the little opportunity there is for associations, render the danger less at these schools than elsewhere. While at the North, lately, I made much inquiry on the subject; for I confess that I had some apprehensions—not as to the contact between rich and poor—on that I had no apprehensions. I have seen enough of the world to know that the most senseless of all class distinctions, is that between rich and poor. The rich man of to-day, is the poor man of to-morrow. The wheel of fortune is ever changing, and the poor man's children are called upon to educate to-morrow the children of him that was the rich man of yesterday. My apprehension was not as to contact with poverty, for I had not forgotten that I had been once a poor boy myself; my apprehension was as to contact with vice. But the uniform testimony everwhere, was that the contamination, if any, was more apt to come down from above. Imitation is ever more likely to seek its original higher up the scale of society than lower down.

2. The next objection urged is that this system will injure the private schools. If by this it be meant that the private schools will be less profitable, in that they will be obliged at least to come up to the standard of the public schools in the conveniences afforded the pupils and in the grade of teachers, no doubt it is true. It is also true that inferior private schools must be abandoned. But no private school that keeps at or above the grade of the public school will be injured. The classical schools will maintain their position, but they must advance in grade and yield up English education to the common schools.

We sincerely pray that the following earnest and manly appeal to the good sense and good feeling of the people of Charleston will not fall unheeded, but that they will give the new system a fair trial. If this is done, we have no fear as to the result.

In spite of prejudice and opposition, we would renew our appeal to you, fellow-citizens, to give to this plan your support and encouragement. The school which we have opened already numbers 460 pupils. Extend to it your approbation, and it will soon be filled. We invite your aid not only in authorizing us to extend the system, but in giving us your children to educate. We wish the leaven afforded by the virtuous middling classes of society; we invite you to come in and see what is doing; and we intend to go on until our State is like the army of Prussia, in which no man could be found who was not able to read his bible or write his own name.

Dr. Dickson's Address. We have since received an "*Address of Dr. D. S. Dickson*," p. 24, delivered on the same occasion, and advocating the same plan of Public Schools—"good enough for all." The Rev. Dr. Thornwell, when President of South Carolina College, addressed a Letter to Governor Manning, in which he remarks:

"It is clear from the face of it that the Act of 1811 was designed as the first step towards the establishment of a system of Common Schools, that should bring the means of elementary education within the reach of every child in the State. It was not intended to be a provision for *paupers*. Throughout our statutes *Free* Schools mean *Public* Schools, or schools which are open to every citizen. The first act in which I find the expression is that of the 8th of April, 1710, entitled an act for the founding and erecting of a Free School for the use of the inhabitants of South Carolina. This act created and incorporated a Board of Trustees for the purpose of taking charge of such funds as had already been contributed, or might afterwards be contributed for public instruction in the Province. In it the epithet *free* is synonymous, not with *pauper*, but *public*, or *common*. The same is the case in the act of the 7th June, 1712, entitled an act for the encouragement of learning. Although the School was a *Free* School, every pupil was required to *pay* for his tuition. But the meaning of the phrase is made still clearer by the extended act of the 12th December of the same year. There the School was manifestly open to *all*. Special inducements were held out to patronize and encourage it, and provisions made for educating a certain number free of expense.

VIRGINIA.

Report of Second Auditor (W. L. Jackson,) *on the state of the Literary Fund for the years* 1854 *and* 1855, *and proceedings of the School Commissioners in the different counties.* 136 pages.

EDUCATIONAL SYSTEM. The laws of Virginia provide for the education of the indigent children of the State under what is called the Primary School System—for the establishment of District Free Schools for all classes, by the council of any city or town having a corporate court, or by any county on the requisition of two-thirds of the resident voters—and for the support of a school of secondary education in the Military Institute, at Lexington, and of the University of Virginia, at Charlotteville. For these purposes a permanent Literary Fund has been constituted, amounting in 1855, to $2,024,300.22 of which $1,641,758.37 is productive, the income of which is annually distributed as follows:

To Primary and Free Schools for education of free children in 1855,	$80,000
To the University of Virginia, ...	15,000
To the Virginia Military Institute, ...	1,500
Total, ...	$96,500

In addition to this income the Constitution ordains that one moiety of a capitation tax, assessed upon white persons, shall be applied to the purposes of education in primary and free schools. The amount of this tax available for school puposes in 1855, was $60,000—making the aggregate appropriation for educational purposes, including $40,000 for the blind, and deaf-mutes, $196,500.

The Reports do not exhibit the working of the system in detail. We glean the following items:

INDIGENT CHILDREN. For the year 1854 there were 3,042 schools in 88 counties, and in 117 counties and 2 towns, 41,608 poor children received the benefit of the school appropriations. The average attendance of each poor child was 53 days, and the average cost paid by the state, $2.57.

DISTRICT FREE SCHOOLS. Nine counties and two towns have adopted the district free school system, for the education of all classes, the rich as well as the poor. The returns do not exhibit the number of schools, scholars, teachers, or the annual expense for 1854–55. The Report of the Second Auditor for the year 1853, states the attendance at 13,176 children, and the total expenditure, $63,293.53, of which only $6,519.80 were derived from the Literary Fund.

We have before us an "Address of Henry A. Wise to *his late constituents*," on resigning his seat in Congress, to enter upon his duties as Minister of the United States to Brazil—from which we make a few extracts as indicative of the direction which, as Governor of Virginia, he will endeavor to give to the educational policy of the Legislature.

TAXATION AND EDUCATION. If I had an archangel's trump—the blast of which could startle the living of all the world—I would snatch it at this moment and sound it in the ears of all the people of the debtor States, and of the States which have a solitary poor "unwashed and uncombed" child, untaught at a free school—"TAX YOURSELVES."

For what?—

1st. *To pay your public State debt.*

2d. *To educate your children—every child of them—at common primary free schools at State charge.*

That is my legacy of advice to you before I leave my country's shores, to return, perhaps, no more forever.

Distrust all attempts to disturb the operations of a tax-bill already passed. Disbelieve any set of men who come before you with false promises of freedom from taxation. Listen only to those sincere friends who will honestly tell you

that you *must* be taxed, how much you ought to be taxed, and who will counsel freely and fully with you beforehand as to the mode and subjects of taxation. In a word, learn to *love taxation* as the only means of accomplishing such objects as those of paying the public debt, and of educating your children, rich and poor. See to it well that no revenue raised for legitimate purposes is wasted; see that it is all faithfully applied to the true ends of government, but be sure to raise enough and amply enough for every end of state necessity, usefulness, and honor. There is no easy mode of taxation, no royal road to paying debts or to education. Industry, honesty, economy and education alone can make you a free and happy people.

Educate your children—all your children—every one of them!

STATE OF EDUCATION IN THE CONGRESSIONAL DISTRICT IN 1840. Do you know how education languishes with us, [in twelve counties having 87,230 free white persons, of whom 17,809 were over twenty years of age.]

1st. The fact appears that of the whole number of free white persons, nearly *one-eighth* can not read and write.

2d. That of the whole number of free white persons over twenty years of age, more than *one-fourth* can not read and write.

3d. That you have but 17 academies and 101 primary schools, making 118 in all, when you ought to maintain at least 259, leaving a deficiency of 141 common schools.

4th. That you have 2,628 scholars in your primary schools, and but 695 scholars in them at public charge; when you ought to have at least 7,448 children, at from 7 to 15 years of age, all at public charge in free schools, leaving 4,175 children of that age unaccounted for.

5th. That this number of 4,175 children of that age, presumed not sent to school, is nearly the precise number of adults, 4,514, who in this generation have grown up ignorant of letters.

6th. That this number of adults, 4,514, who can not read and write, exceeds even the number of voters, 4,379, in the District.

7th. That, allowing $12.00 to each scholar, you are now expending but $38,646 per annum for common schools, when you ought to expend the sum of $89,376, leaving a deficiency of funds amounting to $50,730 per annum.

8th. That this sum of $50,730 must be raised and expended in some way to make the rising generation more learned than their fathers.

This is a lamentable condition of education among us. I would never have exposed it to the scoff or the pity of the world, but our own census-takers have already made report thereof to the Department of State of the United States, and Congress has printed these facts at public expense. I know that a very large body of our people is among the most intelligent, and some of them among the most learned of the country; I know how much credit and honor is due to some of our parents, who have not only rubbed nature's rust off their sons at common schools, but have polished their minds bright, not only at our own colleges and universities, but in the universities of Europe. I know what a body of well-instructed gentlemen we have, who would do honor to any society of any Athens in the land: how gracefully they live in all the means of the light of learning; what a venerable alma mater of great men we have in old William and Mary College; what a select corps of professors and teachers become our seminaries and academies; what a fine body of young graduates yearly come out from our own and the Northern schools; what an eminent professional corps, both in law and medicine, ministers to our minds as well as to our physical and pecuniary cases; what active industry, enterprise and intelligence there is among the great body of our farmers and planters and mechanics; I know how to account for much of the want of learning among our people from their geographical location—living, as many of them do, on islands and long peninsulas inconvenient to schools; and how much ignorance is to be attributed to the valuable labor of poor children whose poor parents can not spare their time at school, precious as it is, to procure for them their daily bread. I know all these consoling excuses, but still the fact stares us frightfully in the face, that more than 4000 poor children in our district are growing up in the night of ignorance. Most of these, doubtless, are female children, and the touching fact is presented that many mothers of the generation to follow will not be able to teach their sons and daughters how to read and write. We can not mend the present generation of fathers and mothers, but we may provide intellectual food enough, and to spare, for the health and happiness of those who are to come after us.

ERROR IN THE PRESENT SCHOOL SYSTEM OF VIRGINIA. The first and greatest error of our present system is, *that it proceeds upon the principle of charity.* Common school education should not be a *State charity*, but it should be the chief element of the *freedom* of the State. The poor man pays taxes, renders military

and civil service, is subject to fines, must obey the laws; and, in return, he should have the protection of the laws, the ordinary privileges of citizenship, such as the right of voting, and I say, *he should have his children educated as of right, free of charge. And in all these respects the rich and the poor should be placed on precisely the same equal footing.* There should be no distinction between the children of a republic. They are not in the school sense the children of their parents; but the State is *Parens Patriæ*, and they should all be regarded as the sons and daughters of Mother Commonwealth. The taxes, it is true, will have to be raised chiefly from the property of the rich; but at last the school revenue is distributed as funds of the State, and when with her liberal and equal hand they are distributed impartially to all, there is no feeling of dependence in any. They all alike look up to the benign State Mother for the mental bounty, all praise her only and love her supremely for it, and thus is laid a foundation of *amor patriæ* ever during as the reminisences of school-boy days, and fervent as the fondest recollections of life and gratitude can ever be in the human heart. As our system now is, in schools mixed of children whose parents pay for schooling them, and of those who are sent by the School Commissioners of the State, the child of charity is humbled by the comparison of itself with those who pay. The school is not pleasant to this child, and the pride of parents so revolts at the dependence and inequality in the school, that they often refuse to allow their children to enter. Whilst the school is free of *charge*, still it is not *free*. The true course is to make it *free* to all, make it the school of *the State* and let *all her children* come "without money and without price." Then no human pride will militate against education; but, on the contrary, every little "checked apron" will be "washed and ironed," and every little fly-flap bonnet will be stiffened and straitened for the "school parade." Funds and the universal free school are all that are wanting to enlighten every child among us and to array human pride on the side of the school.

PLAN OF VOLUNTARY SYSTEM. You need not, my friends, wait for the tardy action of our Legislature. If we wait for that, I fear we will wait forever. What then? Organize yourselves by counties and districts. All that you have need to ask of the Legislature is to pass an act for every county which will adopt a system for itself, incorporating for it a Board of Education with powers similar to those of the county courts for county levies and other purposes. Let this Board be elected biennially by the votes of all the male parents and guardians, having a member for every hundred voters, according to districts to be laid off by the Board.

Let this Board be required to levy taxes sufficient to educate every white child between the ages of 7 and 15 years, at common free schools, at the rate of $12 per annum for each child; and allowing 30 scholars to each teacher; and to pay expenses of assessment and superintendence. Let it lay off the county in districts of 30 scholars, and one teacher to each district.

Let it have power to appoint one assessor to take annual census of the persons and property to be taxed for the school fund; of one collector of the fund to give bond and security; and one superintendent to visit quarterly each school, to take regular account of the system of teaching, of the number of pupils, and of the qualifications and conduct of teachers, and to make report thereof to the Board; with reasonable compensation to each of those officers.

Let this Board have power to fine, and to collect fines of parents and guardians, rich or poor, who fail and refuse to send their children or wards to some schools of their own selection. And let it meet quarterly or as often as it chooses, with power to pass by-laws for its own government.

PLAN OF STATE AID TO COUNTIES THAT WILL HELP THEMSELVES. For every county that will thus tax itself to educate itself, the State should, out of the literary fund, build all the additional school-houses required. It should do more, and what is all essential—*it should take upon itself to furnish competent* TEACHERS, *in a reasonable course of time, to every county in the Commonwealth.* And this can easily be done. The university and the colleges, particularly, must be more liberally patronized. The universities and colleges are the fountains of good teachers. They must be upheld and encouraged, and the most munificent and beneficent mode of doing this, in my humble opinion, is for the State, out of the literary fund and by taxation, if necessary, to support at the respective colleges a number of our own Virginia youths equal to twice the number of Delegates and Senators in the Legislature; and to require these youths, when they have obtained certificates of competency, to teach in the primary and common free schools, at the rate allowed of $12.00 for each scholar, as long as they have been maintained at college at State charge. Let them enter into indentures to the State, and then they will obtain their education, and will have worthily paid for it. Each youth of this description will cost not more than $250 per annum for his board, tuition and incidental expenses.

The number proposed is 332, and the cost to the literary fund would be $83,000 per annum. This would give to each university and college 25 State students, and distribute to each the patronage of $6,385 per annum. This would give to the State in every term of three years, say, a corps of 332 competent teachers certain to be engaged in the work of tuition for a period of three years more, and shedding the light of their knowledge into every recess of the State, and exciting the thirst for mental improvement everywhere by their example, and when done teaching, abiding ornaments of the State.

The State, too, should furnish the books for the free schools; and should have two general superintendents, one for Eastern and one for Western Virginia.

AN APPEAL TO ALL CLASSES TO AID THE WORK OF UNIVERSAL EDUCATION. I call upon the learned Professors of William and Mary, and of the academies and schools—I call upon the reverend clergy, of every denomination—I call upon my brethren of the bar—I call upon the humane faculty of medicine—I call upon our most excellent farmers and mechanics—I call upon parents and guardians—I call upon women who would be the mother of scholars, philosophers, sages and great men—I call upon all ages and sexes—I call upon the rich man and the poor man, and upon men of all conditions—to stir, to "live, move and have their being" in this vital subject. Knowledge is power; it is the greatest of all power. It is the power which overcomes all *social* obstacles; it is the power which prostrates all *political* inequalities; it is the *power* which overcomes all *physical* obstructions in the way of man; castes and ranks and grades bow before it; wealth is impotent against it; it subdues the earth; and it humbles tyrants!! And if *knowledge* is *power*, *ignorance* is *weakness—utter*, *impotent* weakness. We say we were all *born* free and equal—that may be so. But, if we were *born* so, the state of freedom and equality does not last long in life if one man is to be cultivated in his mind, whilst the other is permitted to grow up in ignorance. How is the man who can not read and write, the equal in power of any sort, except muscular power, of the man of letters? No; ignorance among the People destroys the liberty and equality of the People: it makes inequalities in the social state; it gives one man a pre-eminence and preference among men over another in the political state; it makes the very weeds of the earth too strong for man's physical might to earn his bread; it makes the rich richer, and the poor poorer—the strong stronger and the weak weaker; it is the sycophant and slave of tyrants, and the foundation of despotism: it not only enslaves the citizen, but enervates the State. Does any one suppose that, if education had been universally diffused among our people, Virginia would have increased in the last ten years in white population some 20 or 30,000 only? That her agriculture and mechanic arts would be in the low state they are now in? That the rich bowels of her inexhaustible mountain mines of iron and coal would be undug and almost unexplored? That her manufactures would have languished as they do? That the Big Bend of the Ohio river would not have been tapped long ago, and that the mighty Miami country, and an interminadle back country besides, would not, ere this, have built us an Eastern city to consume our products at home? That emigration would have flowed from us to lands not half so precious, to homes not half so sacred? Oh! my friends, the theme is full of facts, figures, and feeling!

SELF-EDUCATED MEN AND BOOKS. To the poor, ignorant man, I say, let no man tell you that "a little learning is a dangerous thing." The least of it is not half so dangerous as that ignorance which can not read and write. If Patrick Henry once said—"*Natural* parts are better than all the *learning* in the world"—don't believe it, though he said it. What would *he* not have been, had he possessed only half the learning of the world? Of what would the power of his "*natural parts*" have stopped short in human greatness, in human eloquence, if he had been possessed of the *purchase* of the lever of learning? The self-made man may boast—I love to admire him rising by the lone power of his genius; but I despise his self-sufficiency, when he boasts against "*the books*." Not once in an age does it happen that one self-made man stamps the age with his genius. But at last, how can any man be said to be self-made? Those who claim to be self-made, are so made by the *books*, if not by the school-master. Tell me the knowledge that any one of you all has which was not derived, directly or remotely, from the books? None,—there is none in law, none in medicine, none in agriculture, none in mechanic arts not traceable to the books. And, my friends, if you would only yourselves go to the books, they would inform you much better than you are now instructed, by tradition, or second-hand informers. Look for yourselves, learn for yourselves—to the books! to the books! and be self-made yourselves, if you will. But the school-master must teach you *how to read and write*. Remember that the books are sealed to those who can not read and write. I will not descant upon the pauperism and the crime which "a little learning" would di-

minish. No; there is a much more interesting class than that of inmates of poor-houses and of jails to be discussed. I mean one of the best classes of men on God's earth—a class with whom "the gods," are said to take part in their struggles through life—that class of good men, who, notwithstanding they were never taught, are so endowed by nature with noble instincts as to perform their whole duty worthy of themselves, worthy of the State, and worthy of their eternal destiny. Men whom ignorance does not debase; whom it does not enervate or make to despair; men who work in the world against all odds of ignorance, and win a crown of earthly honor and of eternal glory. I know who they are—I know every one of them in my old district by name. I would have a word with them. They are the *good, hard-working, honest* class of men, who, notwithstanding they can not read and write, can "*make their marks*" in the world. May God bless them!

I know an aged man—small in stature—his head is silvered over with the white frost of years—with a lively joyous face, and a twinkling blue eye that needs no glass for its keen vision—an honest heart and a hand as hard as axe-helve and plough-handle would have it—who does "not know a letter in the book," and who yet is rich in the stores of practical wisdom and of real wealth. Some one near Guilford, in Accomack, can guess who I mean. I would have a word with that good old friend of mine. I speak to his noble example—I speak to him because I love him, and he belongs to a class by whom I wish to be heard—I speak to him for his class. Listen to me, good old man. I see you smile and swear you *are not old*. Well, that is exactly like you, but I am serious. You *are great* in my eye. You can not read and write—you will have to get some one to read what I write to you and all like you—but you have, without learning, achieved a conquest in life. You began a neglected, pennyless, friendless boy—you have worked, honestly worked, at hard labor, until your hand is as hard as you heart is soft and tender. "Scorn can not point her slow-moving finger" at you. There is no blot on your name. You have dug the earth for your bread, and lived literally by the sweat of your brow. You have lived honestly; you have paid your debts with the cash down; you owe no man any thing but good will; your industry has been untiring; a thousand and a thousand sturdy blows you have struck with a freeman's "right good will" for the "glorious privilege of being independent." Every way by which you have won "geer" is justified by honor. You have oppressed no man, you have been just to every man, and have never robbed the poor, or the widow, or the orphan. You are *a happy old man*—there is jollity in your very eye, and temperate habits have made you healthfully buoyant and cheerful. God has given you children and grandchildren, and your sons and daughters are like a thick forest around you. The kind, hospitable partner of your bosom and of your journey through life still abides with you on earth; and you have laid up *plenty! plenty!* and have *peace* with it for your good old age. This is a mastery, this is a self-made man. Now, tell me, good and great old man, what would you *not* have been had you held in your grasp the lever of knowledge? Ah! you know what it is to have a hand-spike at a log-rolling or a house-raising. You know what a "*purchase*" of power is. Knowledge, learning, is all that and more. How many blind licks it would have saved you? How many thousands and tens of thousands more than you have now in your old "blue chest," you would have had, could you have seen by "learning's light" the dark ways of nature? Do you know that learning made your axe-helve, your plough-handle—that it applies in the most proper way that very hand-spike—your ox-chain—that it prepares the very best manure—that it can beat you all hollow in applying it to the soil—that it knows more than you do all about the soil of every field you plough, and can tell you of every plant which grows on it, and the food it craves—did you know that learning saves labor—sells your grain, fixes the price, and carries it away for you. Ah! you shake your head, and say,—"Well, I would not give my poor weak experience for all your book-learning!" Do you say that? Well, if that be so, if you know something which the books don't teach, I am the more urgent still—*you must write it down* for the rest of the world—for your own posterity—*write* it, *record* it, you are bound to do so for the sake of some poor fellow who is to come after you in your way of life, and who hasn't your experience. But you *can't write*. Pity! pity! You know something, then, which you can't communicate to more than the few who hear the sound of your voice. Learning would enable you to do that much at least. Suppose you go and get some one else to write it down for you, *your experience in cultivating corn, potatoes*. You told me tobacco was a valuable medicine for horses once. Write it, I say, and have it printed, and bind it, and what then does it become but *book-learning!* Book-learning to be dispensed by somebody else, perhaps, in the present or coming generation; and what is poor despised "book-learning," at last, but somebody's *discovery*, somebody's *experience* of nature's laws or nature's truths? Don't despise it, my friend; but go to that old, long-used, well-worn leathern bag, or "stocking-leg" purse in that same old blue chest, and take from it *twelve*, just *twelve* of those hard dollars for which you have worked so honestly and so hard, for each and every child and grandchild you have, put it in his satchel and send him to school.

II. THOUGHTS ON RELIGION AND PUBLIC SCHOOLS.

BY RT. REV. GEORGE BURGESS, D. D.

If the Christian religion be from God, it ought to influence every thought and act of man, and to control every department of human life. If education be the school of character, it is least of all to be excepted from the sovereignty of that religion.

That Christian men, therefore, should view with indifference any attempt to establish an absolute separation between education and religion, is not to be expected from them till they renounce their faith. They can have no more idea that a child can be rightly educated without instruction in the laws of God and in the Gospel, than that a man can live without the same knowledge, and yet duly serve his Maker, and be prepared for the life to come.

Education, therefore, must be religious, and must include instruction in all necessary knowledge of the truths of divine revelation. In proportion as the dignity, the importance, and the efficacy of education are magnified, this necessity becomes but the more impressive and undeniable. If the educator could be content with defining his task as that of teaching to read and to write, or even to measure the earth and to number the stars, it might be allowed that this, like any other specific skill, could be imparted without saying a word concerning duty, or sin, or salvation. But we are accustomed to hear far higher praises of the work and of the men that are to form the youthful mind, and so to shape the character and the destinies of a people. Either undue and exaggerating honor is paid to the office of the teacher, or he must teach the most sacred truths, as well as those of inferior majesty and of only earthly interest.

The honest Christian must bid him take his choice. Be the teacher, he will say, of an art or any number of arts, if you will, and touch not moral things; or be a teacher of all which makes the man, and then you must teach the knowledge of God.

The honest teacher will answer, either that he is a Christian, and is ready, according to his ability, to teach religiously and to teach religion; or that he is content to leave to others the higher task,

and to teach only the elements of secular science and art. In either event, there is no longer any confusion; and the question, whether there shall be a course of secular instruction, and a separate course of religious instruction, or whether one course shall mingle both, becomes a question of possibility or of expediency, and is transferred from the sphere of abstract principle and imperative conscience.

The clergy of most countries have adhered to the wider view of education in schools, and have insisted, as long as they could, that it should be distinctly Christian, and should even form a part of the ecclesiastical system. They are not to be blamed; and had union in religious belief been preserved, it is hard to prove that their plan would not have been altogether the best. But for this it is now too late. In all free nations the freedom of discussion, doubt, and denial has been practically asserted; and, for all purposes of religious education, the body of Christians is *one* no longer.

In education, viewed as a whole, the place to be occupied by religious truth has not lost, for this cause the smallest measure of its importance. Religion is still as sovereign there as ever. Somewhere in all true and sufficient education it must have its throne; and from that throne it must sway all the rest.

But the State can support no such throne; because the State is composed of an immense mass of men whose religion is not the same. When education becomes a matter of public provision, the very highest part of education is excepted. The public school, even if under that name we should embrace any more elevated institutions which the public funds might sustain, is not the seat of that portion of this moral work which has to do, most directly and most mightily, with the heart. That, however, it must forego, and be content with its own appropriate task and praise.

The higher task must be performed elsewhere; and the consecrated precincts of the church, and the equally hallowed walls of home, must be the scene of religious instruction. It has there, too, a fitter and a happier sphere than the State, with all its wealth or its universal care, can attempt to furnish.

All this is perfectly consistent with the undoubted fact that religion is the prompting motive from which public education has had its origin, and must have its best support. It sustains that education as it sustains every good design. It desires that all men should be trained in useful knowledge of every kind, because it desires their improvement and happiness. Ignorance, in its view, is weak-

ness, is poverty, is exposure to moral disease, is the absence of many of the highest enjoyments, is the obstruction of the purposes for which the beneficent Creator made man in His own image. Therefore, ignorance is an enemy to godliness, and a hinderance of salvation, as well as, in itself, a positive and mighty evil; and religion must long and labor to remove it from the path of society. To suppose that a Christian can be indifferent to the intellectual cultivation of his fellow-men would simply imply that he had no appreciation of its value for himself; for he must wish to communicate all which he prizes.

It is perfectly true, also, that even in the teachers of all secular knowledge, religious men will desire and prefer a spirit and principles like their own. A father who merely commits his son to the instructions of a writing-master, would rejoice to find in him a man of Christian worth, and would feel that the boy was somewhat safer. It is not possible, in any department of life, to exclude or neutralize the beneficial influence of the steadfast fear of God and the sincere love of mankind. The religious man or woman will always be, all other things being equal, unspeakably the better teacher, even of arithmetic or of needlework. Under any system of public education, however remote from a sectarian or exclusive character, this preference will be felt, and cannot be changed into indifference.

Under these systems the introduction of religious instruction, in combination with secular instruction, is relinquished, not upon grounds of abstract excellence, but upon those of convenience or necessity. Accordingly, either the system is not extended over the youngest or the oldest of those who are to be educated; or if it be, it does not command a general acceptance. The public school offers no urgent invitation to the child just rising from infancy; it leaves him, not unwillingly, to the gentle hands of his mother or of some maternal preceptress. At the other end of the course, colleges and universities are commonly allied to the Church rather than to the State. From the latter they accept aid; to the former they accord welcome intervention and an active control. Not merely financial or political considerations fix the limits of public education on this side of the highest institutions of learning. For it is felt that all education must begin and end in religion; that the infant must learn the names of God and of the crucified Redeemer with his first accents; and that the young man should not go forth

into the world of professional study, action, and influence, without a settled faith. But between these two periods lies the time which public education appropriates; appropriates, simply because the interests of the commonwealth require the instruction of all in useful knowledge, and because no other power can furnish the means of such instruction for all alike.

If the task of religious education be then declined by the public teacher, it is left in hands which certainly are better fitted to execute it with dignity, with diligence, with fidelity, and with tenderness. It is in the hands of special teachers, whose labors are voluntary; of pastors; and of parents.

The Sunday School has become one of the institutions of society, wherever the English tongue is spoken. It enlists a body of teachers whose intelligence is animated by no other impulse than that of Christian love. They receive no hire, and they wield no instruments of discipline. They come to their pupils on they day which is consecrated to all holy works of piety and charity. There is nothing to disturb the pure influence of their instruction; no other studies crowding in; no intermixture of heathen mythology or abstract science; no hurry to the playground; no dread of the rod or superadded task; and none of those hereditary associations, which, absurd, unjust, and pernicious as they are, yet do still, more or less, connect themselves with the relation between the boy and the professional teacher. Love is the bond between those who teach and those who learn on the Sabbath.

When the pastor is the teacher, love is united with reverence. His office inspires that reverence, and his intelligence in sacred things merits a confidence which might elsewhere be less readily bestowed. The duties of pastors to the young may be but imperfectly undertaken, especially where the ancient and most useful custom of catechising has fallen into neglect. But it would still be great injustice to compare their influence with that of teachers who sustain no sanctity of office, have devoted no special study to sacred letters, and are not, in virtue of their office, supposed to be persons of piety.

But no teachers have an appointment more holy or divine than fathers and mothers. The cannot but educate their children religiously or irreligiously. No separation can take place in the training of home; for that is purely for the heart and soul; and its first and supreme end is the goodness of the child. He learns his

prayers on the knees of his mother; he is taught to examine himself at the close of each day; his conduct is, without ceasing, subjected to a watchful scrutiny; there is no vacation, no recess, no occasion when he is released from this supervision. These teachers have an authority, too, which, for him, is the direct interpretation of the will of his Maker. To the child, the voice of the parent is the voice of God; for so has God commanded. And all which he hears and learns from these sources comes to him as nourishment from the bosom of an exhaustless love, to which his childhood must cling as if it were to him the whole wide universe.

This is the provision which the Church and the family, with many collateral aids, assign for religious education. Piety in the public teachers, and religious truth in the common school, would be additional aids; but are they indispensable, or could their influence be weighed in the balance against all this? Whatever may be the excellence of many professional instructors, whatever their noble enthusiasm in their calling, it is not to be disputed, that, as a body, the teachers of public schools are governed, in the choice and pursuit of their occupation, by the same motives which incite persons of respectable and worthy characters in all departments of business. They engage in it for a remuneration; they abandon it when it becomes unprofitable; or they exchange it for positions which are more lucrative or more to their taste. They are not appointed, and cannot well be, for their personal devoutness. If they should teach religion, it would be as they teach grammar, not because the task is known to be enthroned in their affections, but because it is made a part of their business. We do not disparage the transcendent beneficence and exalted piety of many teachers; but it is an accident, so to speak, whether these mark the character of an individual teacher; they are not and cannot be the distinguishing properties of a class selected as teachers must always be under any public arrangements. Little will it avail, that a cold, dry, unfeeling, and perhaps unbelieving teacher, consent to teach catechism, or to open his school with prayers. A truly religious teacher, even without those exercises, will leave some impress of his own spirit on the minds which he has assisted in forming and replenishing. This can be attained even now; and if any would avoid this, they must make piety a ground of exclusion from the office. The most determined unbeliever would hardly desire such an issue; but neither can piety be made a condition of admission, if it were even in our power to en-

force the rules, since the talents and acquisitions which make the successful teacher are dissociated from it; and since, precious as it is, it cannot, in this position, be deemed one of the chief instruments on which the cause of religion must rely.

What, then, is the power which Christianity *cannot*, and what is that which it *can*, exercise in the system of public schools of a land like our own?

It *cannot* teach all its doctrines and laws, as they are held by any body of Christian believers.

It *cannot* blend religious truth with secular instruction, to any degree which implies the attempt to communicate systematic religious knowledge.

It *cannot* attempt to inculcate a religious character, or, in other words, faith in the Lord Jesus Christ, by precept and exhortation.

It *can* take for granted a general acquaintance, in the pupils, with the facts of Christianity, united with reverence for it as a Divine revelation.

It *can* infuse into the teacher, so far as he obeys it, a spirit which attracts to his religion, and inspires the desire to resemble its faithful followers.

It *can* afford a Christian view of every science and every department of knowledge, and show their connection with revealed truth in its great outlines.

It *can* inculcate the whole moral code of the Gospel, by rule and example.

It *can* exclude and counteract every influence of infidelity.

It *can*, in many instances, with the universal consent of the community, affix a more decidedly religious character to the school duties of each day, by the observance of daily prayers.

It *can*, with the same consent, introduce the Bible, and promote, by daily reading, the familiar knowledge of its contents; not as if it were a mere reading-book, though the best, but as the generally acknowledged word of God.

It *can*, with the same consent, which may generally be assumed, impress, as occasion is offered, all that great and priceless mass of truth in which all Christians are substantially united.

IV. MEMOIR OF NICHOLAS TILLINGHAST.

BY RICHARD EDWARDS.

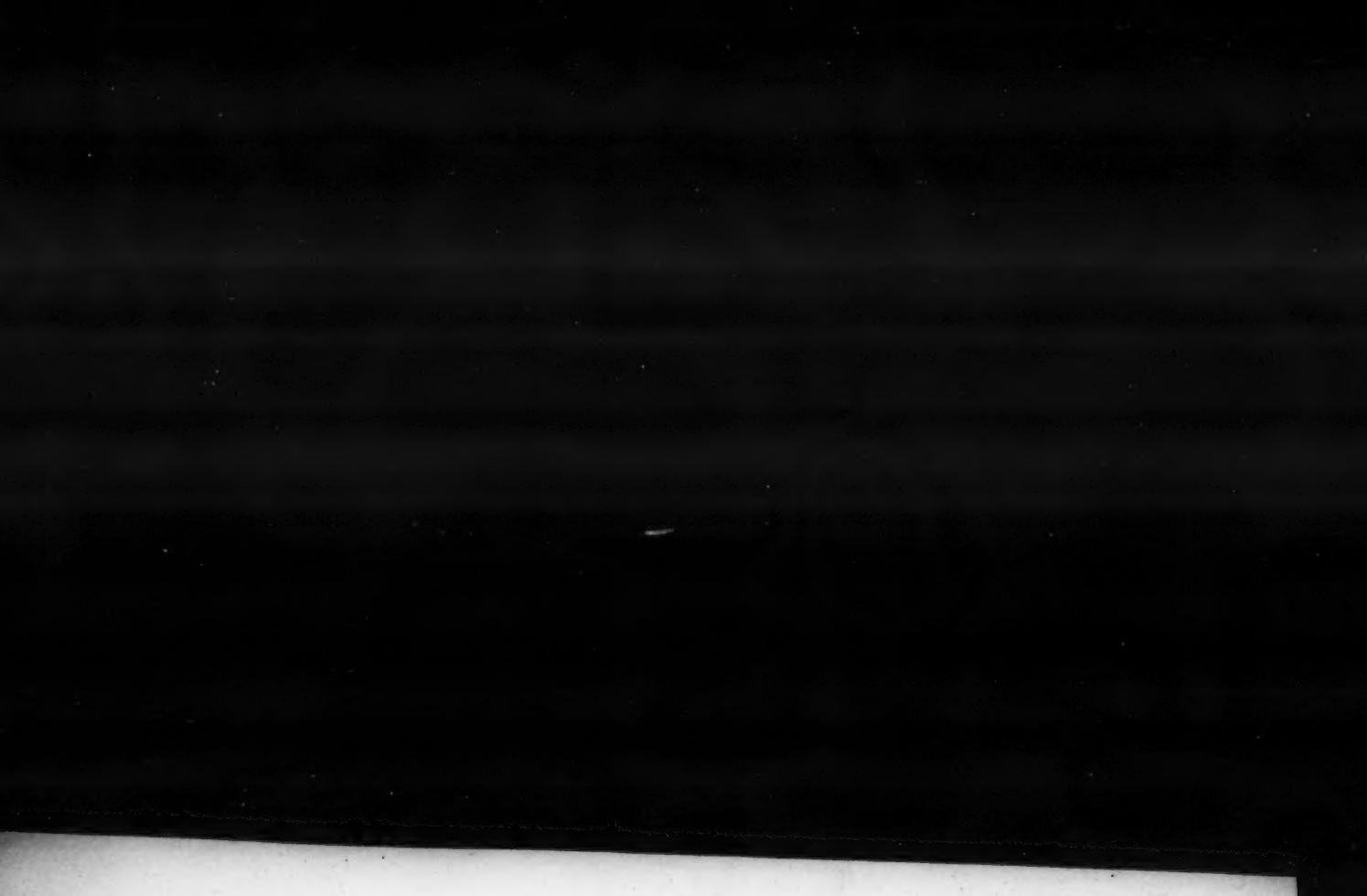
Principal of the State Normal School at Salem, Mass.

[An Address delivered before the Annual Convention of the Graduates of the State Normal School at Bridgewater, Mass., on the 30th of July, 1856.]

FELLOW TEACHERS AND FELLOW PUPILS:

We have met in social and friendly gathering for many years. There are doubtless those here who formed a part of that small band, with whose help, the school of which we have been pupils, was first launched upon the voyage of its existence. Year after year, as occasion would permit, they with others have come up to this, the scene of their former labor, to feel the softening influences of early associations upon those hearts which the business and turmoil of life do so much to harden and deaden; or perhaps to renew here where they were first consecrated to a noble profession, their vows of devotion to its trying but exalting and responsible duties. Some of these occasions have been joyous. The familiar salutations of friends, from whom we have been for a season parted, the warm grasp of the friendly hand, the mutual recital of experiences, the sight of the well known village and its landscapes,—these have been the most prominent circumstances of a convention, and have forever associated with our gatherings the most gladdening recollections. But all has not been joy;—there have been also times of sorrow. Death, that spares no band, has not withheld his hand from ours. Again and again our ranks have been thinned by his unerring shafts. One after another, the young, the promising,—those to whom we looked for noble deeds in the future, have fallen by our side, and we have mournfully betaken us to our journey alone.

But whatever change may have met our eyes here, we always, except on a single occasion, until one year ago, were cheered by the countenance, and encouraged by the words of one whom we loved as our teacher, and venerated as a noble illustration of the Christian man. At our last meeting, we were informed that ill health kept him in a distant part of the State. To-day, we miss him again, and even the faint ray of hope with which we then solaced ourselves, has been extinguished. Our hearts are saddened by the knowledge that he has departed from our midst, and that while we continue bound



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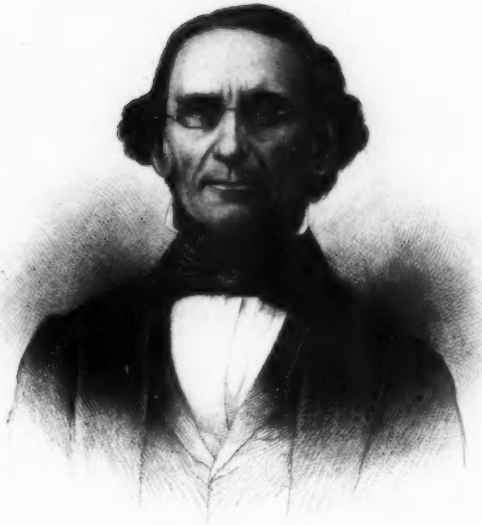

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to this lower world, our separation from him is final. This, indeed, is a new experience, and one for which, notwithstanding what we knew of the inroads of disease upon his system, we were scarcely prepared. And even with the positive knowledge we now possess, it is hard to realize the saddening truth. It almost seems as if a convention could not be without his presence. We can scarcely conceive of the scene without the central figure that was wont to give dignity to it, and to kindle the enthusiasm of us all.

But the sad reality must be contemplated, and on the present occasion it is fit that we should express for his memory, in some suitable way, the respect and affection which we all profoundly feel, and to impress upon ourselves the lesson taught us by his life and his death. And in our expressions of respect and sorrow, I am quite sure there will be none of the cold formality which is sometimes exhibited. For if there is any vice which the very remembrance of him would rebuke in a manner more marked than another, it is the vice of pretence,—the ostentatious profession of a sentiment which we do not entertain. No, our grief is real;—our tribute of respect unfeigned. We dare not profane the memory of one so invariably loyal to the truth and to truthfulness, with any offering that comes not from the heart!

Nicholas Tillinghast, the first principal of the State Normal School at Bridgewater, was born at Taunton, Bristol County, Massachusetts, on Saturday the 22d of September, 1804. He was the second son, and seventh child, of Nicholas Tillinghast, Esq., at that time, one of the most prominent members of the Bristol Bar. He early exhibited the germ of that inflexible adherence to what he considered the right, and that elevated and correct tone of moral feeling, which, in later years, expanded into the controlling principle of his life. Anecdotes are related of him, which show that at the tender age of nine years, he had the same feeling of self-denying devotion to the good of others, which marked so strongly his later life. At the age of sixteen, when the West Point Cadets were on their march through the New England States, he happened to meet Miss Eliza Townsend, the Boston poetess. This lady was so much struck by some remark of his, indicating the possession of moral principles nobler than are usually found in young men of that age, that she formed for him a friendship, which terminated only with her life, and which was exhibited even in her death. But our records of his childhood are not very copious, nor would it seem expedient, even if they were, to introduce here many details. From all that I can learn,

it appears that in every respect, in character, in temperament, in manner, the boy was father to the man.

At a proper age he was sent to the Bristol Academy, at Taunton, where he pursued the studies usually attended to in those days by lads who were to prepare for college. It had probably been the intention of his father to give him a college training, but the father's death, which occurred in April, 1818, left the family in circumstances that induced them to relinquish this project, and the young man was taken out of the Academy, and placed in the office of a lawyer. Here he continued for about two years; and in June, 1820, through the aid of Hon. Marcus Morton, at that time a member of Congress, an appointment to a West Point cadetship was obtained for him. Thus was the whole course of his life changed; and instead of the smooth and pleasant path of a New England student, he was ordained to enter upon the rough marches and toilsome labors incident to a life in the United States Army. Speculation as to the degree of usefulness he might have attained, if such change had not occured is vain; perhaps the wisest cannot with any confidence offer an opinion upon the subject. For those whom it intends for high usefulness, Providence always furnishes the necessary culture, whether they be reared in the cot or in the palace; whether they are trained in the cell of the student, or amid the hardships of a frontier life. There can be no doubt however, that the severe mental discipline of the Military Academy, the self-reliance induced by the active duties of the graduated officer, are, to those who possess moral stamina enough to endure them, and make a proper use of them, excellent preparations for the business of teaching. They not only contribute mental strength, but accustom the mind to act promptly from its own judgment formed upon the spot; and this readiness in deciding is a valuable attainment to one whose vocation calls upon him to immediate decision many times in the day, and upon very important questions,—which is in a high degree the case with the teacher.

Mr. Tillinghast's course as a cadet was in keeping with his general character. As a scholar, he does not appear to have been brilliant, but we doubt not, he was always reliable. It is something to say of him, that he passed successfully the several examinations to which every cadet is subjected. Of his own class, consisting originally of seventy members, only thirty-one were able to come out of the ordeal unscathed, at the end of four years. That he was among the thirty-one, will certainly appear to his credit as a scholar, when it is remembered that he was one of the twelve youngest in the class on being admitted. But he occupied by no means a low position in the class

thus eliminated. His number on the merit roll was thirteen, "which," in the language of the venerable Col. Thayer, at that time Superintendent of the Academy, "was a highly respectable standing, considering that he was then the youngest but five in his class, and that in scholarship, the difference between him and most of those above him was very slight." Those who have learned all they know of his success as a student at West Point from his own conversation in respect to it, will be surprised to find that he stood so high; for here as everywhere, his own estimate of his labor and of its results, was very far short of that placed upon them by others. Indeed the standing here indicated is precisely that which, from his character, we should expect to find him occupying. It does not indicate the possession of splendid and showy powers, but rather of a mind solid, reliable, thinking more of the quality than of the quantity of its acquisitions,—acquiring carefully, so that every new truth learned should become a part of the mind itself, and be a support and strength to it when the Academic course should close, and the special stimuli there applied should be withdrawn.

He graduated on the first day of July, 1824, and was commissioned as a second Lieutenant in the Seventh Regiment of Infantry. After serving for three years on the Western frontier, he was attached to the Military Academy as an instructor in Chemistry, Mineralogy and Geology; and having performed the duties of that situation for two years, he again joined his regiment in the West. In August, 1830, he was reättached to the Academy as Assistant Professor of Ethics, and continued to act in that capacity until December, 1834, when being promoted to a captaincy, he again went to the frontiers, and remained in command of a company in Arkansas for nearly two years. He resigned his place in the Army in 1836.

We doubt not that Mr. Tillinghast, while an officer in the army, discharged his duty faithfully, and to the satisfaction of his superiors. But his tastes and feelings were ill-adapted to that mode of life. He found good and noble men among the officers under whom he served, and with whom he was associated, but we we think we may say with truth that his experience of military life deepened in his mind the dislike for war and for all its paraphernalia. He was emphatically a man of peace, in feeling and in principle. We refrain from attempting to state his views on this point with any great degree of minuteness, for we are not aware that he ever took the pains to make them known in detail; but that he had a strong repugnance to the soldier's life, and also to the deciding of national differences by an appeal to arms,—that in short, he was opposed to the whole

institution of war, is a fact that will be abundantly borne out by all who were familiar with him during the latter part of his life. Especially was it true that he had very little respect for the holiday parades of our "citizen soldiery." And yet, he was by no means insensible to the good qualities of those engaged in the profession of arms. He was keenly alive to that sense of honor which prevails among army officers. He has often been heard to say, that although he was opposed to the principle of placing a military chieftain at the head of the nation, yet his observation had taught him that the honorable impulses of a military man are often more worthy of confidence, even in that high station, than the principles, so called, of a time-serving politician.

During his residence in the the western forests and prairies, he suffered much from the diseases incident to those regions,—fever and ague and other complaints; and his friends think that his physical powers were essentially weakened during his stay in Arkansas. His resignation was undoubtedly caused by this circumstance, joined to the distaste for military life to which allusion has already been made.

From the time of his leaving the army until his appointment by the Board of Education, in 1840 to take charge of the Normal School at Bridgewater, Mr. Tillinghast was a teacher in Boston. For the most of this time he taught a private school, fitting young men for West Point, for engineers, &c. He was also for a short time an instructor in the English High School at Boston, and always entertained a great respect for Mr, Sherwin, the accomplished head of that institution.

It was while laboring in this quiet and retiring manner that he was sought out by Hon. Horace Mann, then Secretary of the Board of Education, and invited to accept the Principalship of the School which it was proposed to establish at Bridgewater. After serious consideration, and with great reluctance, he finally consented to accept the post. On this occasion, as always, he distrusted himself. He shrunk from assuming the grave responsibility belonging to the situation. To be a teacher of teachers seemed to him a great thing, and he did not look upon himself as fitted to accomplish great things. Verily the history of man does occasionally furnish examples of a judgment erring on the side of modesty!

In order to understand the importance of the work which Mr. Tillinghast was called upon to do, and the consequences depending upon it, we may find it useful to recall some facts in regard to the establishment of the Normal Schools in Massachusetts. They were brought into existence by the self-sacrificing efforts of a few gentlemen, whose attachment to the cause was earnest and heartfelt. The

establishment of these schools was not a measure first proposed by a legislative committee, and put into operation wholly at the State's expense. On the contrary, it was proposed by individuals, and for the first three years of their existence, the State bore much less than half the expense of suporting them. In the early part of the year 1838, Edmund Dwight,—a name that ought ever to be held in grateful remembrance by all who feel an interest in the success of the public school system of Massachusetts,—offered through the Secretary of the Board of Education, to furnish ten thousand dollars, to be expended under the direction of the Board, in establishing seminaries for the preparation of teachers for the public schools; provided the Legislature would appropriate for the same purpose an equal amount. After some opposition, the proposition was accepted, the ten thousand dollars were voted, and the Board was empowered to put the schools in operation. It was decided that there should be three,—one at Lexington, one at Barre, and one at Bridgewater. Those at Lexington and Barre went into operation in 1839, and that at Bridgewater in 1840. The sum of money furnished in the manner just mentioned, —twenty thousand dollars,—together with such sums as were raised in the towns where the schools were located, added to what was furnished by individual contribution, was sufficient to continue the schools for three years. This, it was judged, would be sufficient time for trying the experiment,—for testing the plan of training teachers for the public schools at the public expense. At the end of the three years, of course, the whole expense of their continuance would come upon the State. Under these circumstances, it will be easy to see that the duty of the teachers of the Normal Schools was no sinecure. It was required of these teachers, that, with exceedingly imperfect instrumentalities, they should demonstrate to the frugal voters of the Commonwealth, the utility of a set of institutions that were to take from the State treasury large sums for the erection of school buildings, and ultimately, some seventeen thousand dollars annually for their ordinary support. For feeble humanity this would seem to have been task enough; but in addition to all this, they were compelled to encounter a fierce opposition from many teachers, who thought their own field of labor encroached upon by the new, and hitherto unheard of, State seminaries. Surely, under these circumstances, success was a great achievement, and the fact that success was attained, speaks the praise of those earnest teachers more loudly than any words of mine can do it. It may I know, be urged, with truth, that the schools had good friends in the Legislature and elsewhere, and that the Secretary of the Board was a gentleman of superior

ability, extended culture, great influence, indomitable resolution, and unflinching devotion to the cause, in which, at a great personal sacrifice, he had engaged. The earnest support of all these was necessary to the successful establishing of these institutions. If any of them had been wanting, the scheme must have fallen through. But every friend of popular education has reason to be thankful, that in the trying hour they all stood bravely at their posts; that the Secretary had counted the cost before entering upon the war; that members of the Legislature, of whom one is still an honored resident of this town, regardless of self and self-interest, gave their energies to the support of a measure which has so abundantly improved the character of the public schools; that the teachers, in spite of many obstacles, such as the brief period during which their pupils were under their instructions, the want of suitable buildings and apparatus, and the influence of the opposition already mentioned, still persisted in their noble work, with a faith that removed the mountains in their path, and an industry that knew no fatigue.

But it will be especially useful for us to enquire what means our teacher took to prepare himself for the work which he regarded as of such importance. The school at Barre, which went into operation on the 4th of September, 1839, had been placed under the charge of Professor Samuel P. Newman of Bowdoin College. Mr. Tillinghast, when he had finally concluded to accept the appointment offered him, proceeded to Barre, and spent six months in observing the methods, and studying the principles adopted by Prof. Newman in his school. During this time, he prepared many manuscripts of lectures and explanations for his own use in his new position. Every subject on which he was to give instruction was carefully thought out, and the results of his thoughts was committed to paper for future use. This work of six months, however, was but the beginning of what may be called his preparatory labor. Every exercise was carefully considered before it was to come on,—usually on the night before; and very frequently it happened that midnight found and left him at his labors. And such watching was not atoned for by morning slumbers, for the early morning was likewise devoted to duty. He was a believer in industry, in the power of earnest work, and maintained that nothing truly valuable can be accomplished without it. When he had thus prepared himself, as well as the brief space of time, intervening between his appointment and the commencement of his labors would permit, he entered upon his duties as Principal of the Normal School at Bridgewater, on the 9th of September, 1840.

Here and at this time, no doubt, began the great work of his life.

Whatever may have been his success in his previous employments, it is not likely that it was such as to make him particularly eminent. But in the Normal School, his position soon became a marked one. Upon the public schools of the Commonwealth, he has exerted a telling influence for their elevation and improvement. This influence is felt not only in those schools which are under the direct charge of his pupils, but also in hundreds of others, where his name was never heard. His spirit, his views, his methods, seem to have become part and parcel of our educational system,—they seem like the waters of a clear stream, to impart their own purity to the wave with which they mingle. They float about in the educational atmosphere, and are inhaled by all who breathe it. There is no especial part of the system which he originated; no institution which he founded or endowed, or to which he gave a name. These may be called the material or corporeal parts of a people's educational means. But he furnished much of what we may consider the soul,—the animating principle that moves this otherwise dead machinery. He built no school-houses, but he built the character of many an earnest and successful teacher. And as the teacher is more valuable than the school-house or school system, however valuable these may be, as the soul is nobler than the tenement in which it dwells,—so was his life a nobler benefaction to the cause of education, than if it had been spent in endowing institutions or framing systems. Travel over our Commonwealth; visit elsewhere hundreds of school-houses of every degree of architectural pretension, from the lowly, weather-stained cabin in field or forest, to the costly structure that graces the attractive avenue in the city;—and you will find his pupils in them all, and all without exception, ready to attribute to him the elements of their highest success.

As a teacher, Mr. Tillinghast had many striking characteristics. In the first place, he acquired a power over his pupils,—men and women,—that we think is seldom attained. To mere lookers on, it seemed like a sort of fascination, and even to the objects of it, the pupils themselves, it was often a mystery. For he used none of the arts commonly practised to secure the good opinion and attachment of men. On the contrary his manner, towards those who were not more or less familiar with him, was sometimes thought to be cold, distant, reserved. Even in his intercourse with his pupils, he was far from habitually adopting that freedom and ease of manner which often makes school so pleasant. And yet, we may venture to say that the instances are very rare, in which a teacher is so earnestly and at the same time so universally beloved by his pupils as was Mr. Tillinghast.

The true secret of all this power of his over his pupils, which enabled him to fill them in a great measure with his own spirit, as well as of the remarkable affection which they entertained towards him,—the secret of all this lay in his personal character, in that quiet but unflinching devotion to principle, that heroic and real abnegation of self, which to those who knew him intimately, appeared as the ruling trait of his moral nature. His words, being few, and well considered, were very impressive, and yet, not so much for what he said as for what he *was*, did he exert so positive, so salutary, and so extended an influence. His pupils were fully persuaded of the soundness of his judgment, his unswerving integrity of purpose, his perfect sincerity and scrupulous justice; and in this persuasion, they seemed to surrender themselves unconditionally to his influence. His devotional exercises in the school were always conducted with great simplicity of manner, but with a power which his pupils can never forget. His reading of the Scriptures, and of those brief, earnest and devout prayers, in his calm and serious manner, was an exceedingly impressive exercise. The words sounded through the perfectly quiet room like the voice of inspiration. He did not discard the teaching of religion and morals, by word or by book, but in these departments, he depended mainly upon that silent teaching which a man of strong religious feeling, and pure character will infuse into the very atmosphere of a school-room. One of the natural results of this course was, that when he did employ words for enforcing some religious or moral truth, they made a deep and distinct impression upon the listener's mind, and the precepts imparted were, in many instances, never forgotten. His power was particularly apparent when some delinquency on the part of a pupil, made it necessary to administer reproof. On such occasions, his words were very few, and by no means severe, and yet they very deeply affected those to whom they were addressed. I never knew a pupil of his who did not shrink even from the mildest reprimand from him. The mere knowledge on the part of a pupil, that Mr. Tillinghast disapproved of his course, even where no disapprobation had been expressed, was a burden which very few could endure. I do not think that in the management of his school, he can be said to have been fertile in expedients. He ruled by the force of his own exalted character, by his earnestness and faith. His remedies for delinquency were, in the main, general; he did not resort to one expedient with one person, and to another with the next, but he approached all in the same straight forward and frank manner. This course is not to be commended to every teacher; most of us

need to vary our modes of reproof or punishment, according to the character of the individual to be affected. Our moral power is too feeble; it cannot bend the stubborn will, or arouse the slumbering energies of our pupils, without the aid of schemes devised by the intellect. But in Mr. Tillinghast, the moral power was so well developed that it seemed to bear down all opposition before it, without the aid of shifts and expedients, and for himself, his mode of proceeding was undoubtedly the best.

Of his character as a teacher of the intellect, we may also say that it was distinctly marked. His most notable trait in this respect was something similar to what is usually expressed by the word thoroughness. And yet this word does not fully exhibit the idea. There was thoroughness in his teaching, but there was also another element, which if we could coin a word, we might call *logicalness*,—an arranging of the subject taught according to the character and wants of the mind to be instructed. In every operation, there was not only thorough knowledge, but thorough reasoning. Every point was not only to be thoroughly understood, but it was to be understood rationally, it was to be understood not only by itself, but also in its relations. The pupil was himself required to discover if possible, or at least to appreciate, the connection between one part of the subject and another, to see how much of one statement could be inferred from a previous one. Mere thoroughness in the knowledge of facts, or of principles, learned and remembered, is a very different matter from the thoroughness that characterized the teaching of Mr. Tillinghast. The one can be accomplished by the industry of the pupil; the other requires, in addition, careful thought and ready skill on the part of the teacher. His great weapon, by the help of which he accomplished his work in the recitation-room, was the asking of questions. And his questions were always framed with a view of ascertaining, in respect to the subject of the lesson, *what* the pupil knew, and *how* he knew it, and the causal interrogative was so frequently employed in his exercises, that his pupils were in the habit of calling it the "eternal *why*." He had rare skill in arranging his questions, so as to expose every false opinion, every illogical conclusion. How many times has the glib and fair-seeming explanation been shown to be hollow and unmeaning by his searching interrogatories! How often have ignorance and sophistry been forced suddenly to stand out in their native deformity, as at the touch of an Ithuriel's spear, when in guise of knowledge and wisdom, they had been silently but surely working the destruction of thorough study and good mental habits!

And how many teachers rejoice, to-day, in having had their eyes first opened by these thorough and faithful recitations!

From this it will appear that Mr. Tillinghast was a teacher, an educator, one who considered his employment an art, to be rightly practised only by those who in some way have studied its principles. It is scarcely necessary for me to add here, that he was entirely indifferent as to where or how such study had been pursued, provided only it had been thorough and efficient. He thoroughly knew what he was to teach,—no man better,—but he also knew how the knowledge must be imparted in order to promote the mental culture of the pupil. His recitations were quiet, he employed in them very few words, and yet they were full of earnest thought both on his own part and on that of the scholars. Indeed the most noticeable thing about his recitations, was their tendency to awaken thought in the pupil. And this we should be prepared to expect from knowing how they were conducted. Every individual was required to stand upon his own feet, and when he made a statement, to make it from his own perception of its truth. There was no trading on borrowed capital,—or if circumstances seemed to indicate that this was attempted,—that something was confidently stated, which had been received by the pupil upon authority, when it ought to have been reached by his own thought, how soon a skillful question, calling for an exhibition of the vouchers, became the occasion of a failure!

It may not be uninteresting to state here, that Mr. Tillinghast was of the opinion that it would neither be well nor expedient to make the Normal Schools exclusively professional, in the sense of excluding from them every study except that of the science and art of teaching. Indeed, his own instruction in this latter department was in a great measure, though not entirely, imparted indirectly, and in connection with the teaching of other things. And let it not be thought, on this account, that he considered it of trifling importance. By no means; for a considerable portion of time was devoted entirely to this subject in his own school. But when we speak of Mr. Tillinghast's giving instruction indirectly, we must not forget that he had a power of silent, and perhaps "unconscious" teaching, that produced great and positive results. This we have already attempted to set forth. He taught many things, without uttering a word, that in the minds of his pupils, have taken a distinct form, and become to them a sure guide.

But while Mr. Tillinghast was thus faithful to the weightier matters of his profession, he did not neglect the minutiæ,—the mint, anise and cummin of pedagogic law. Among the humble, but exceedingly

appropriate virtues which he carefully practised, was that of punctuality. The habit of punctuality and regularity had undoubtedly been strengthened in him by his experience in the army. But aside from this, he was punctual and regular from principle. Only once during the thirteen years that he was at the head of the school at Bridgewater, was he late; and that once, no one who was a pupil at the time can soon forget. So remarkable a thing was it for Mr. Tillinghast not to be at his post at the moment for beginning the exercises, that it was thought he must be prostrated by sickness, and a committee of the pupils was appointed to proceed to his house and to ascertain the facts. This committee found him quietly walking his parlor, awaiting, as he supposed, the hour for opening the school. He had just examined his watch, and although it really indicated the correct time, yet by some strange mistake, he thought he had half an hour to spare.

To enumerate all his school-room characteristics would occupy too much of our time. We will therefore only glance at a few, of which the contemplation would seem to be the most useful. And, first, he was remarkably accurate in his work, even to the minutest details, and he required perfect and minute accuracy in his pupils. No excellence of explanation, no appreciation, however thorough, of general principles, was ever allowed to atone for mistakes in the details of an operation, mathematical or otherwise. And such errors he had great skill in discovering. A mere glance of his eye over a blackboard solution of a problem in mathematics, would detect any error wherever it might lurk, among the wilderness of figures and symbols. And it should be noticed that in carrying out this trait of his character, he was always as ready to acknowledge his own errors as to point out those of another. Although such acknowledgment was seldom required, yet whenever it was required, it was made with alacrity, and without any of the miserable shuffling, explaining, and excusing sometimes practised on such occasions by teachers who would fain be considered infallible.

But rather than say anything further of my own, concerning Mr. Tillinghast's qualities as a teacher, I will take the liberty of repeating the testimony of another of his pupils, a gentleman eminent in his profession, occupying an honorable and important post connected with the educational interests of another State, and who was for long and intimately acquainted with our beloved teacher. This testimony seems to me so just and well expressed that I introduce it even at the risk of some slight repetition.

"He was a truly religious man, and in the highest and best sense;

for his religion manifested itself in his life and deeds, rather than in his words. He always sought to know the right, and to do it; to seek the path of duty and to follow it, lead where it might.

"He was sincere and true in his dealings with himself and with others, neither doing nor saying anything merely for effect. He censured the wrong because it was wrong, and commended the right because it was right, and showed by his life that his own standard of action corresponded to that which he indicated to others.

"He was truly and unaffectedly modest. He forced you to think of the subject he presented rather than of himself. He never pressed himself, his opinions, or his school, on the notice of others. He sought no expression of their good opinion, and deprecated not their ill opinion. While at times he may have felt that his school did not receive that attention from without which it deserved, and that his work was not fully appreciated by any save his own pupils, he would by no act or word call attention to it. He was content to labor on, believing that the time would surely come when the result of his work would be made manifest, whether he should be known in it or not.

"He had that high self-respect which led him to respect others. He therefore appealed to worthy motives only. Everything like trickery and deception he despised, in teacher as well as in pupil. Hence he could never tolerate those whom he could not trust. He had a deep sense of personal responsibility, and sought,—with great success—to inspire others with it.

"His words of reproof were few, yet apt. There was no escaping them. They never came undeserved, they were always direct, always kindly spoken, and always "told home."

"Though at first reserved and apparently cold and distant, he was very warm-hearted and generous, sympathetic and kind. Happy indeed were they who came to know him intimately.

"He was industrious, earnest, and devoted. He allowed himself no idle hours, and discouraged all idleness in others. He believed that 'nothing good was ever come by without labor,' and regarded industry as a duty. Hence, he never did his pupils' work for them. He would guide them in the right track, and indicate methods of overcoming difficulties, but nothing more. His suggestions and explanations, and the assistance he rendered never did away with the necessity of thought on the part of the pupil, but rather made it the more necessary. With him, no glibness or readiness could conceal or atone for a want of study; nor could self-distrust or diffidence hide the evidence of faithful preparation.

"Almost invariably accurate, he was ever ready to acknowledge any error he had made. The sentence, 'I was wrong in my statement or opinion,' fell from his lips, though very, very rarely called for, as easily as did the contrary one, 'You were wrong.' He never sought to hide, or explain away, or excuse erroneous statement or explanation which he had made; but, always endeavored to correct it. He was very successful in exciting a similar spirit in his pupils.

"He had great analytical power. While he could grasp a subject as a whole, he could also comprehend all its parts, could trace their relations to each other, and could determine the proper place and importance of each. To this power he was indebted, I think, for the great clearness of his explanations.

"He had a great love for thoroughness,—thoroughness in study, in teaching, in everything. Especially was he thorough in investigating and teaching the first principles of a science. In his view, a deficiency there was fatal. He held his pupils to a point till they mastered it, and could appreciate something of its relations. Those accustomed to superficial views, sometimes complained at first of their slow progress; but, when the work was done, and they were prepared for a higher course, they felt its value.

"In his teaching he was strictly inductive; developing his subjects easily and naturally, and removing difficulties, and explaining just enough to stimulate to exertion. He would question closely, and would make his pupils feel their ignorance and need of study, without humiliating them.

"He usually read character very readily and accurately, though he was sometimes deceived. This, however, but seldom happened. He understood his pupils much better than they thought he did, and knew much of their thoughts, feelings, and habits of life."

To this testimony I will only add a few considerations in regard to Mr. Tillinghast's character as a man. As has already been intimated, the great distinctive feature of his character was his constant reference to principle, in respect to every act. An eminent clergyman, who had been long on terms of intimate friendship with him, once made this remark to me: "I believe Mr. Tillinghast never asks himself any other question concerning a proposed act, or line of conduct, than this single one, 'Is it right?'" It is for Omniscience only to say, whether this was true on every occasion, and under all circumstances. But, so far as human insight could penetrate the hidden recesses of his mind, which was so simple and ingenuous, it seemed so to have been. And this conviction was felt by none so strongly as by those who were most familiar with his private life.

Notwithstanding the scrupulous severity with which he judged his own conduct, his judgment of others, and especially of his friends, was kind and liberal. He was always very lenient toward the faults of his assistant teachers, excusing in them many deficiencies that he would have severely censured in himself, and expressing great satisfaction with their performances, when it was morally certain that he would have regarded similar things in himself as of very little worth.

His practical benevolence, although it made serious drafts upon his moderate salary, was conducted strictly upon the Christian plan,—his left hand never knowing what his right hand was doing. Many a man could tell of substantial aid received from him in greatest need, and the books of benevolent and reformatory associations would show no meagre sums accredited to his name, were it not that the name was most frequently withheld, when the gift was delivered. Where prudence and benevolence came in apparent conflict, and either of them was called to give way, that duty generally fell to the share of the more cautious virtue. All generous reforms had in him a warm sympathizer, and a prompt supporter; and, his firm and consistent anti-slavery was not without the usual accompaniments of obloquy and social proscription. Naturally, he was a man of strong feelings, both of liking and aversion. He was the firm friend,—not exacting, but liberal,—making his friendships more valuable to his friends than to himself. His aversions were not for persons, but qualities. He was really impatient of certain vices, such as deceit, pretence, the putting on of false appearances, the arrogating to one's self of excellencies to which there was no claim, the doing of things for mere effect, and similar maneuvering. His own conduct was outspoken and straightforward, and his feeling of contempt for the opposite course was very strong. But, he was free from suspicion, very slow to attribute bad motives, unwilling to believe evil of those about him; and, it was only upon very strong evidence, that men came under his condemnation.

In his religious feeling, he was habitually earnest and devout; but, his devotion did not obtrude itself upon men's observation, and draw attention to itself. It was a modest, firm, constant, deep-seated, calm, and trusting devotion. At the time of his death, and for many years before, he held the office of deacon in the Unitarian church, at Bridgewater. We believe he was a Christian, for, otherwise, we know not how to interpret that teaching of our Saviour. "By their fruits shall ye know them: a corrupt tree can not bring forth good fruit."

Mr. Tillinghast's modesty made him exceedingly disinclined to appear before the public as an author, and we are not aware that he

ever did so except in two instances. About the time of his appointment to Bridgewater, he prepared a work on Geometry, for the use of schools; and, a short time before the close of his connection with the school, he published an excellent collection of prayers for schools, consisting of such as he had himself used, while at Bridgewater. This book is highly prized by his pupils, both on account of its intrinsic merit, and because its perusal serves to recall most vividly the memory of their teacher, in one of the most interesting exercises of their school-days.

In the way of history, little more can be, at present, said. Long-continued hard work gradually enfeebled, and finally overpowered, a slender physical frame. In July, 1853, he left the school, as it was then hoped, to return to it in the course of a year. But, his body had become the prey of that fatal disease, consumption; and, notwithstanding the efforts of skillful physicians, and a winter's residence in Florida, he continued to sink in strength, and, on the 10th day of April, 1856, he died, in the fifty-second year of his age. For some time before his death, he had suffered much from severe fits of coughing, and had some apprehension that he should pass away in one of these convulsions. But, it was not so ordered. He encountered the "king of terrors" calmly and serenely, passing gently from a quiet sleep to the repose of death. He died the death of the Christian, rejoicing in the hope of immortality, and, with his last breath, committing his spirit to the Father who gave it. His remains lie upon the southern slope of the southern hill in the beautiful cemetery at Bridgewater, at a point that overlooks the pleasant village which was so long the scene of his labors,—where the sun smiles upon his rest, as his Heavenly Father smiled, in the hour of death, upon his returning spirit.

We are told, in Scripture, that the limit of our life is threescore years and ten, and that the strength which carries us beyond is labor and sorrow. From this declaration, it may be inferred that, as a general rule, the ages of men who duly observe the laws of their being, will approach, more or less nearly, the limit here established. Men, who receive their bodies and souls as gifts from God, which they are to watch and keep with jealous care; who do not poison the life-current of the one with the artificial stimulants to a depraved appetite, nor shake the foundations of the other by the upheavings of ungoverned passion; such men may be expected to approach, in their journey, the outmost confines of human life, and to pass away amid the consolations of a green old age.

But, there are, sometimes, crises in human affairs; times when the

development of some great principle, or the illustration of some truth not known to the multitude of men, demands that the work of many years shall be crowded into one; or, that the power of truth shall be illustrated in one glorious moment of martyrdom; when, at the call of duty, life must either be shortened by an intense devotion to a great work, or its thread be suddenly snapped as a testimony to the faithfulness of the laborer, and the greatness of the work in which he was engaged. The higher life, the progress of the race, may require the sacrifice of the lower life of the individual. Thus, we believe, passed away the beloved teacher, whose memory we this day, with a sad pleasure, recall. He entered the public educational field when the skies were dark, when the star of hope had scarcely risen, and was obscured by the cloud of an adverse public sentiment; when the normal schools were, even by their friends, considered only as an experiment, and one that, in the opinion of many experienced and able statesmen, would prove an entire failure. It was to a cause thus unpromising that he gave the whole energy of his soul. With an untiring industry, he devoted to his school his days and his nights. He engaged in hard and continuous study, not from motives of ambition, but from a deep sense of responsibility in respect to his school, and to its influence in advancing the cause of education. Nor did the necessity for such study arise from a defective education, but from a determination to adapt his instructions to the mental and moral wants of his pupils, and of those whom they, in their turn, were to educate. He was earnestly desirous that, so far as he could exert any influence upon the character of the public schools, that influence should be good, should tend to their elevation and improvement, and to the advancement of the cause of popular education; and this, not for his own sake, that he might acquire a reputation, and occupy an honorable position in the sight of men, but for the sake of the thousands whose hearts and minds are formed, in a great measure, in those conservators of New England virtue and intelligence,—the public schools.

Such were his aims, and the amount of labor which he thought necessary to their accomplishment, could be sustained only by a robust physical frame, and could be performed only by a well-balanced and active mind, guided by the highest principles, and acting under the influence of a determined will. For such a work we believe his mental and moral endowments to have been eminently fit; but, in his physical system, the necessary conditions were not supplied; the sword was too sharp for the scabbard, the energies of the spirit were too mighty for the clay, and the mortal coil was shuffled off. Shall we now say that his life was not sacrificed in the discharge of a high

and holy duty; and, shall we doubt that Heaven approved the offering? Every heart instinctively answers, no. The exigency demanded the sacrifice. His example was needed to show us, his pupils, what manner of spirit we must be of; with what forgetfulness of self we must devote ourselves to the noble work whereon we have entered; how, with an eye single to Truth and the Right, in spite of difficulties and discouragements, we must still labor on, in patience and in faith, believing that the harvest will surely come, whether we are among the reapers or not.

And, was the work of Mr. Tillinghast worth such a sacrifice? Did he, in his short life, achieve results at all commensurate with the time, the labor, and the life that were devoted to them? Let the appeal be made to every individual who ever enjoyed the benefit of his instructions. My brother, or my sister, whence came your higher views of life and its duties? Who opened to your mind a new world of intellectual life and moral perceptions, of which you had before never had a glimpse? Who stirred your soul to higher aspirations than you had ever felt, and roused it to nobler purposes than you had as yet formed? Who waked up within you a moral energy that, when you do not permit other influences to smother it, makes you ashamed of low views of duty, of feeble and ill-directed effort, and enkindles within you a glowing earnestness in your work? On this point, I am sure that language fails to express what is deeply and clearly felt in the heart of every pupil of his, who is with us to-day. We all feel that the *great* work which he did for us, that which we most highly value, is precisely that which can not be represented in speech. That higher teaching was not conveyed to us in words, and words can not impart it to others. If imparted at all, it must be by the sympathy of spirit with spirit. If, therefore, we would do for our pupils what he did for us, we must teach as he taught, by possessing ourselves the qualities with which we would have their characters adorned, and by entering upon our work with a zeal and an earnestness that will bring the minds of our pupils into sympathy with our own; remembering that only from the fullness of our own hearts, and the perfection of our own characters, can we have the instruction to impart; and, only by a glowing and energizing enthusiasm can we make it efficient upon the character of others.

Such, friends and fellow-pupils, so far as my imperfect ability could sketch him, in so brief a time, was the man at whose feet it has been our high privilege as well as our delight, to sit in the attitude of reverent and attentive listeners. I have endeavored to be strictly just, to state not only the precise truth, but also to present that particular

combination of truths that would give the justest and truest idea of the man. I have sought to weigh my words, to abstain from unwarranted statements, and excess of panegyric, and I am confident that my expressions fall below what you feel in your hearts. We all feel that we are cherishing the memory of no ordinary man, and that the language of an ordinary occasion is not adapted to our use to-day. It is not only our teacher that has fallen, but a standard-bearer in the great educational army. When we consider his exalted character, and the paternal relation in which he stood to us all, with what sincerity, and what loneliness of heart, are we ready to exclaim:—

"He was a man, take him for all in all.
I shall not look upon his like again."

On such an occasion as this, it seems eminently fit that the feelings which we have been for years cherishing, without an opportunity for public utterance, should be freely expressed. Let us then lay upon his grave the tribute of our respect and affection; and, as we return to the scenes of our accustomed labor, let us learn the lesson of this experience, let us open our minds to receive and to cherish the influence that goes forth from the life and character of our departed friend and teacher, and let us see that our own lives and the teachings we impart, shall not be altogether unworthy of that which we have received.

V. ART.—ITS IMPORTANCE AS A BRANCH OF EDUCATION.

BY M. A. DWIGHT.

[Continued from page 418.]

GEMS. The engraving of stones, like the engravings of coin dies, was an art of gradual growth, having for its first object, the purposes of economy and traffic; that of sealing stores and treasures as well as documents. At the same time, metal and wooden seals were used with devices of little significance.

Many ancient signets were found in the form of cylinders, and were probably suspended about the person. As art progressed, signets were fashioned into rings, and worn upon the hand as an ornament, a custom which had its influence upon the dactyloglyphist, who with this stimulus, attained a degree of skill in his own department proportioned to other branches of formative art.*

The art of working in hard and precious stones advanced at a very early period, after the example of the Phoneico Babylonian stone cutters, from a rude incising of round holes, to the careful engraving of entire figures in the even antique style. Of the Babylonian sculptures, but few remain; therefore, little can be known of their style of art. According to Herodotus, every Babylonian had his signet, of these many are found, especially the cylinders in the neighborhood of Babylon, consisting of hard and precious stones, the chalcedony, hæmatite and agate; and although the use of these was transferred from the Chaldeans to the Magi, from the religion of Baal to the worship of Ormuzd, yet they might be understood and explained from Babylonian customs and usages. We can even yet recognize conjectionally, some of the chief deities of the Roman empire, which is however too little known to us to admit of detailed explanations. The workmanship of these cylinders is of various merit, often consisting almost entirely of round cavities, sometimes very careful and elegant. In design, the style corresponds very much with the monuments of Persepolis.

In the third period of art, the engravings of stones was so much improved, that the luxury of ring wearing, raised the art of the

* All rings were at first signet rings; then they became ornaments and badges of honor. Uuengraved gems were also readily worn, and the engraved everywhere else applied.

dactyloglyphist to the greatest height that it was capable of attaining in proportion to other branches of the formative art, although the accounts of writers do not mention the names of any artists of this class, except that of Pyrgoteles, who engraved Alexander's signet ring. In gems also, we occasionally find a composition and treatment of forms corresponding to the Phidian sculptures, but works of this description, in which the spirit of the school of Praxiteles is manifested, are far more numerous.

In the fourth period, from the 111th to the 158th Olympiad, the luxury in engraved stones was carried to a still greater height, particularly from the custom derived from the East, and were chiefly maintained by the court of the Seleucidæ, of adorning cups, lamps and other works in metal with gems. For this and other purposes, where the figure on the stone was merely for the purpose of ornament, and not to form impressions like a seal, the gems were cut in high relief, as cameos, for which variegated onyxes were preferred. To this class, belong the cups and goblets entirely composed of precious stones (onyx-vessels) which made their appearance at the same time. In this art were executed works wonderful for their beauty of design and technical perfection, particularly in the early stages of the period, when art was still animated by a higher spirit.

The work in precious stones is either *intaglio*, a depressed form, or *cameo*, a raised form. The principal object of the intaglio is, the impression; that of the cameo, ornament. For intaglios, transparent stones of uniform color were used; also, spotted and clouded. Of precious stones, so called, scarcely any were used but the hyacinth and amethyst. Many culled half precious stones were used, especially the numerous varieties of agates. Among these were the highly esteemed cornelian, the chalcedony, and the *plasma di smeraldo*. For the cameos, variegated stones were used, such as the onyxes, consisting of smokey brown and milk white layers, and the sardonyxes, which added a third layer of cornelian. These were also frequently produced by artifice, as well as similar kinds of stones, which oriental and African commerce brought to the ancients, of surprising and now unknown beauty and size.

Passing from the engravers hands, stones designed for signet rings, went to the goldsmith who set them. The form of the sling was the favorite one. Although in the signet-ring, the device was certainly the principal thing, the name is sometimes added; and here it must be assumed, that a name, which readily strikes the eye, must rather be referred to the possessor than to the artist of the gem. The fact that both States and individuals had seals, accounts perhaps for the

great correspondence of many gems with coin-types; thus also the Roman emperors with a head bearing their own likeness, with which coins were at the same time stamped. The frequent application of engraved stones to the decoration of drinking cups and other utensils (a practice derived from Byzantium by the Romans) was continued down to the middle ages. Even now, antique gems must sometimes be sought for in church vessels. In the engraved vessels formed entirely of gems, which are connected with the class of large cameos, many works, admirable for the extent and difficulty of the workmanship, have been preserved, although none of them belong to the time of a pure taste, and a genuine Hellenic art.

As a substitute for the precious stone of the signet-ring, glass was used among the less wealthy, and for that reason the imitation of gems and cameos in glass pastes was very widely diffused in antiquity, whereby many very interesting representations have been preserved to us in this class of monuments. According to Pliny, the glass was wrought in a three-fold manner; sometimes blown, sometimes turned, and sometimes engraved; the first and third process are also found united. Although perfectly pure and white glass was far from being unknown to the ancients, they every where manifested a preference for colored, especially purple, dark blue, and green, and, for an iridescent splendor. They had also beautiful cups and goblets of colored glass, which were sometimes made of variegated glass, and sometimes ingeniously composed of glass and gold.

Among the ancients, the Egyptians, who made great use of the signet, even to the sealing of their sacrifices, practiced gem sculpture with great success, both in intaglio and in relief; but more particularly the former. Those preserved to our times are for the most part called *scarabaei*, from the figure resembling a beetle, and are of green jasper, cornelian and calcedony.

The Greeks, before the decline of their country, surpassed all others in the sculpturing of gems and precious stones. The same skill and taste that characterized their architecture and sculpture, is exhibited in all their arts, more particularly gem sculpture. Theodore of Samos, who engraved a lyre on an emerald belonging to the King Polycrates (556 B. C.) was one of their most famous engravers. In relation to this extraordinary gem, we have the following anecdote. "Polycrates was remarkable for the good fortune which for a long period constantly attended him; so much so, that Amasis, king of Egypt, his friend and ally, advised him by letter, to break the course of it, by depriving himself of some one of his most valuable possessions. This advice was in accordance with the heathen belief, that a

long career of uninterrupted felicity was sure to terminate in the greatest misery. Polycrates, having resolved to follow the counsel of Amasis, selected an emerald ring, which he was accustomed to use as a signet, and which he regarded as his rarest treasure, embarked on board a galley, and, when he had reached the open sea, consigned this ring to the waves. Strange to relate, about five or six days afterwards, while Polycrates was still grieving for the loss of this costly jewel, a fisherman brought to his place a large fish which he had caught, and on opening it, the lost ring was found. Polycrates informed Amasis, who immediately broke off his alliance with him, through fear of sharing the evil fortune with which he was certain that the ruler of Samos would be visited." The interest in this work has been newly revived by the announcement that "a vine dresser of Albano, near Rome, has found in a vineyard the celebrated ring of Polycrates. This treasure, the history of which is familiar to all readers of Schiller's ballads, was brought to Rome after the death of Polycrates, 522 years before Christ. It was seen also by Pliny, and mentioned by him. The Emperor Augustus placed it in a golden case, and for safety, deposited it in the Temple of Concord. The stone of the ring is of considerable size, and oblong in form. The engraving on it, by Theodore of Samos, the son of Telecles, is of extraordinary beauty. It represents a lyre with three bees flying about; below on the right, a dolphin; on the left, the head of a bull. The name of the engraver is inscribed in Greek characters. The upper surface of the stone is slightly concave, not highly polished, and one corner broken. It is said that the possessor of this ring has been offered $50,000 for it, (by a private individual) but has declined it, expecting to make a more profitable bargain with the Emperor Alexander."

This art was carried from Greece to Rome, where Dioscorides engraved the head of Augustus in so masterly a manner, that the succeeding Emperor advanced it to the honor of being the imperial signet. Among the later Emperors, the luxury of wearing gems about the person was carried to an extravagant height. Juvenal informs us, that there was a distinction between the weight of the summer and winter ring; and Martial wittily reminds a freedman, who indulged this folly to a ridiculous extent that the size of his ring was better suited to his former condition than his present, resembling more the link of a fetter than a personal ornament. Heliogabalus was attacked by Lampridius for covering his shoes and stockings with engraved gems, as if the elaborate work of the gem sculptor could be admired when placed on the feet.

Important materials for the history of art are furnished by gems. Dioscorides, who engraved the head of Augustus which the Emperor himself used as a seal, was the most distinguished worker of the kind in intaglios. But the more important than the stones preserved under his name, is a series of cameos that represent the Italian and Claudian families at particular epochs; and besides the splendor of the material, and the dexterity in using it, they are in many other respects deserving of admiration. In all the principal works of the kind, the same custom prevails of representing those princes as divine beings presiding over the world with benignant sway, and as present manifestations of the most exalted deities. The designs are careful and full of expression, although they do not exhibit the spirited handling and noble forms which distinguish the gems of the Ptolemies; on the contrary, there is here, as well as in the reliefs of the triumphal arches, and many statues of emperors, a peculiarly Roman form of body introduced, which is distinguished from the Grecian by a certain heaviness.

The royal collection at Paris, and the British museum of London, contain numerous ancient engraved cornelians (which was the favorite stone for that purpose) of a fine description. Many of the latter were found in the field of Apulia, where Hannibal defeated the Romans so signally. Among them were many belonging to the higher classes, and Hannibal afterwards sent three bushels of rings to Carthage as a token of his victory.

The famous Portland vase, was probably formed in the same manner as the glass imitations of gems. The figures upon it are of a white opaque glass, raised on a ground of deep blue glass, which appears black until placed against the light. The figures are of exquisite workmanship, and antiquarians date its production several centuries before the Christian era, as sculpture unquestionably declined after the time of Alexander the Great. It was long in the possession of the Barberini family, of whom it was purchased for one thousand guineas, by the late Duke of Portland.

Mithridates, whose kingdom was the great mart of precious stones, had, according to Appian, three thousand cups of onyx with gold chasings. It is said, that Alexander the Great, in his eastern conquests, obtained immense treasures in cups and goblets, set with engraved gems. The noblest work of this kind now known, is the Gonzaga cameo, in the possession of the Russian Emperor, with the heads of Ptolemy the Second and the first Arsinoè. According to Visconti, it is nearly half a foot long. Winckelman has published an enumeration of some of the finest gems, and among them is an exquisite cameo of Perseus and Andromeda, in such high relief, that

nearly all the contour of the figures, in the most delicate white, are detached from the ground. It belonged to Mengs the painter, at whose death it was purchased by the Empress Catharine, of Russia, for three thousand Roman crowns; and if it were again thrown into the market, probably none but those who hold royal treasuries could compete for the possession of so great a treasure of art.

While learning how true artistic skill creates wealth, how these productions of nature taken in the rough state may be so enhanced in value by the skillful hand, and cultivated taste of the artist, it may be asked, if making precious stones, and precious metals still more precious, thus adding treasure to treasure, is all that the ancient artist's accomplished? By no means. They were the faithful, and for many successive periods, the only historians. Each one of every age contributed his part towards impressing upon the temples, tombs and monuments the true and imperishable records of the religious worship, domestic habits, social customs, and historical events of his own nation in his own day;—and it is to these records that the historians of the present time refer for information respecting the great nations of antiquity, that have either lost their own traditions, or have forever perished from off the face of the earth; nay, more—these same records, made by artists, including the orders of architecture, the pecular forms of temples, the gems, coins and medals, in their designs and styles of execution, plainly and unmistakeably indicate the taste of a people, their progress in cultivation, their power and resources, and, at the same time delineate the characteristic distinctions that so decidedley mark nationality, with a truthfulness and permanence that belong to no written records.

Antiquarians and learned men have in vain endeavored to decide in what country, and among what people the arts first originated. The theory has been, that they had their beginning in some one nation from whom they were derived by others. Yet, the works of each differ decidedly in character. The Babylonian structures were of vast dimensions, but were not like the Egyptian pyramids, built to stand "till time shall be no more." The taste of the Phrenecians was for richness of color and of ornament. The Chinese are sometimes curious and elaborate, and again, very simple and beautiful, exhibiting a variety among their works of art, that shows great power of invention. The Greeks, wherever they may have received their first ideas of art, cultivated it, as they did all other pursuits, on scientific principles. This enabled them to systematize the theory, and establish principles for the practise of the arts which are now considered the standard by all cultivated nations.

VI. BENEFACTORS OF EDUCATION AND SCIENCE.

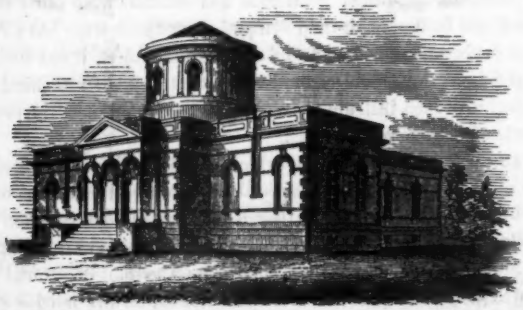
DUDLEY OBSERVATORY AT ALBANY, NEW YORK.

The inauguration of the Dudley Observatory at Albany, on the 28th of August, 1856, is an event of no ordinary interest, whether regarded simply as commemorating the completion of a beautiful memorial of affection, a monument of large hearted liberality, or as the opening of another temple of science, with performances and an audience worthy of the occasion. The ceremony was only the culmination of events which have been in progress for several years, and the observatory is in all probability, only part of a great American university, which will have its seat at Albany.

During the summer of 1852, several influential gentlemen of Albany, became impressed with the conviction that something more should be accomplished by the state of New York in the cause of popular education. Though aware that the system of public instruction, embracing common schools, the academies and colleges has answered all the purposes which their respective founders had in view, still there was a deficiency of adequate facilities for prosecuting the higher branches of education to their fullest extent; in consequence of which, young men were driven to foreign countries for advantages which should be furnished them at home. This suggested the idea of a National University, an institution possessing a character that would meet the exigency in question. Several public meetings were held at Albany, in relation to this matter in the winter of 1852–53, which many distinguished gentlemen and scholars from other states attended, and favored with their sympathies and counsels. As a result of these deliberations, and as a part of the great project, it was resolved to establish, at the capitol of the Empire State, an Astronomical Observatory, with such instruments and agents as would meet the present demands of astronomical science.

As an earnest of the success which should ultimately crown the efforts of the gentlemen who especially committed themselves to the prosecution of the enterprise, they received from Gen. Stephen Van Rensselaer, a donation of several acres of valuable land as an appropriate site for the contemplated building. The plot of ground thus dedicated to the interests of science, is situated on the northern side of the city of Albany, and within its corporate limits, and is peculiarly adapted to the purpose in question. It rises with an elevation so gen-

tle as to allow of an easy ascent, to the height of about two hundred feet above the level of the river, terminating in a beautiful plateau sufficiently extensive to meet every desirable object connected with the contemplated edifice. No sooner had this point been gained, than another donation was announced, of an amount which, at the time, was considered nearly if not quite sufficient, to erect and complete the Observatory building. Mrs. Blandina Dudley, a lady distinguished for wealth and liberality, in token of respect for the memory of a devoted husband, cheerfully appropriated $12,000 to the enterprise; in consideration of which, and as a testimony of their gratitude, the trustees resolved that the Institution should be called THE DUDLEY OBSERVATORY. The favor with which the enterprise had been thus received, led its friends to hope that a yet more extensive plan might be entertained, and that a building might be erected of more ample dimensions and of more perfect appliances than was at first contemplated, requiring at the same time a more liberal outlay of capital. In this they were not disappointed. Several gentlemen at once contributed, until the sum of $25,000 was secured. In the winter of 1853, an act of incorporation was granted by the legislature, by which the government of the institution is vested in a board of trustees, of whom Stephen Van Rensselaer is President, T. W. Olcott, Vice President, and J. H. Armsby, Secretary. The Scientific Council who have charge of the Institution, are Prof. A. D. Bache, Supt. U. S. C. S.; Prof. Benjamin Pierce, Cambridge; Prof. Joseph Henry, Smithsonian Institution; Dr. B. A. Gould, of U. S. C. S. The building was commenced early in the spring of 1853; upon a plan designed by Prof. Mitchel, and Prof. Sears C. Walker, and under the supervision of Prof. G. R. Perkins, and completed during the following year. The following cut* exhibits the exterior view of the Dudley Observatory as originally finished.



*We are indebted for the use of this cut, to Harper & Brothers—publishers of Prof. Loomis' "*Recent Progress of Astronomy*," in which there is an interesting and illustrated sketch of all the Observatories of the United States.

The following diagrams exhibit the external appearance, and the interior arrangements of the structure as prepared to receive the instruments.

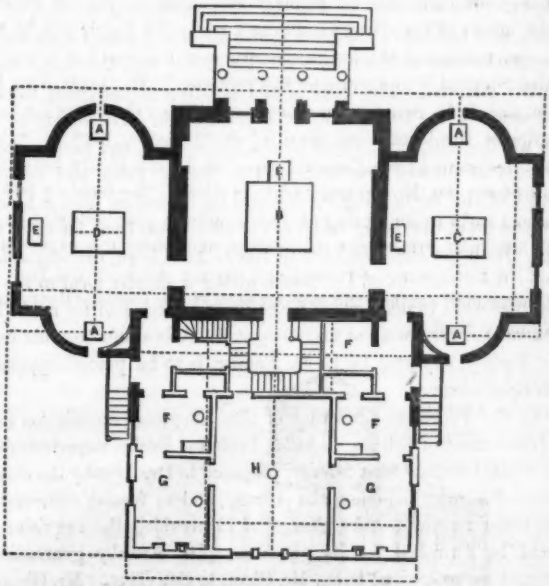


Fig. 2. Ground Plan of Dudley Observatory.

A.—Collimators.
B.—Heliometer.
C.—Transit Instrument.
D.—Olcott Meridian Circle.
E.—Clocks.
F.—Chronographs.
G.—Computing Rooms.
H.—Library.

The ground plan of the building is in the form of a cross, with a front of 84 feet, by 72 feet in depth. The center hall through which passes the great pier for the heliometer, is 28 feet square; the east and west wings, which are designed for the meridian circle and transit instruments, are each about 26 feet square, with a semi-circle area, in front and rear for collimator piers, and provided with the usual openings in the meridian. The rear or north wing is about 40 feet square, divided into a library room of 27 by 23 feet, two computing rooms of 14 by 16 feet, and several small rooms for magnetic apparatus, for recording observations, &c. The heliometer room, in the second story is of a circular form of 24 feet diameter. The revolving portion is in the form of a tower, moving by ingenious machinery. The main pier for the heliometer was commenced seven feet below the bottom of the cellar, with a base of 15 by 15 feet, resting on a bed of concrete and rubble of 24 inches thick. The size of the pier was gradually reduced, up to the level of the cellar bottom, where it is 10 by 10 feet, and was continued of this size throughout the rest of its height. The whole is built in the most substantial manner, of large stone, well bedded. The piers in the circle and transit rooms and for the clocks and collimators are constructed with the same care, of similar material. The walls of the building are of great thickness, and made of the best quality of pressed brick. The basement story, the window sills, caps, corner blocks, belt courses, and portico are constructed of dressed free stone. The library room and computing rooms of the north wing are warmed by heated air from a basement furnace, great care being taken to cut off all heat from the main building. Both the circle and transit rooms have been recently enlarged under the directions of Dr. Gould, giving a circular form to the front and rear walls to make room for collimator piers, and for much larger instruments than were at first designed. A beautiful marble bust of Mr. Dudley, executed by E. D. Palmer, is to be placed opposite the principal entrance.

At the Providence meeting of the American Association for the Advancement of Science, in 1855, Professor Bache, Superintendent of the United States Coast Survey, proposed to Dr. Armsby the establishment of a great heliometer at Albany, and to furnish observers from the Coast Survey to take charge of it, provided the requisite funds could be furnished for its purchase. Dr. Armsby guarantied the amount necessary, and wrote Mr. Olcott to this effect. Mr. Olcott read the letter to Mrs. Dudley, and she cheerfully contributed $6,000 for the purpose. This sum was soon increased to $8,000, and subsequently to $14,500. Mr. Olcott at the same time contributed $5,000 for the purchase of the splendid meridian circle, by Pistor & Martins,

of Berlin. This is the largest instrument of the kind in the world, and has been named by the Scientific Council in honor of its generous donor, The Olcott Meridian Circle. A fine transit instrument, also by Pistor & Martins, ordered by Prof. Bache, occupies the west wing of the building, the Olcott circle the east, and the Dudley heliometer is to be placed in the central tower. Several valuable clocks, barometers and thermometers have been ordered in France and Germany. The chronographs are made by the celebrated artist, Mr. Farmer, of Boston.

The construction of the heliometer has been confided by Dr. Gould, after visiting the workshops of Europe, to our eminent countryman, Charles A. Spencer, who has just returned from a European tour to visit the best observatories of England and the continent.

At the inauguration of the Dudley Observatory, on the 28th of August, 1856, the following letter, addressed to the trustees by Mrs. Dudley, was read.

ALBANY, August 14th, 1856.

TO THE TRUSTEES OF THE DUDLEY OBSERVATORY.

GENTLEMEN—I scarcely need refer in a letter to you, to the modest beginning and gradual growth of the Institution over which you preside, and of which you are the responsible guardians. But we have arrived at a period in its history, when its inauguration gives to it, and to you, some degree of prominence, and which must stamp our past efforts with weakness and inconsideration, or exalt those of the future, to the measure of liberality necessary to certain success. You have a building erected, and instruments engaged of unrivaled excellence, and it now remains to carry out the suggestion of the Astronomer Royal of England, in giving permanency to the establishment. The very distinguished Professors, Bache, Pierce and Gould, state in a letter which I have been permitted to see, that to expand this Institution to the wants of American Science, and the honors of a National character, will require an investment which will yield annually not less than $10,000. And these gentlemen say in the letter referred to—"If the greatness of your giving can rise to this occasion, as it has to all our previous suggestions with such unflinching magnanimity, we promise you our earnest and hearty co-operation, and stake our reputations that the scientific success shall fill up the measure of your hopes and anticipations."

For the attainment of an object so rich in Scientific rewards and National glory,—guarantied by men with reputations as exalted and enduring as the skies upon which they are written, contributions should be general and not confined to an individual or a place.

For myself, I offer as my share of the required endowment, the sum of $50,000 in addition to the advances which I have already made, and trusting that the name which you have given to the Observatory may not be considered as an undeserved compliment, and that it will not diminish the public regards, by giving to the Institution a seemingly individual character.

I remain, gentlemen,
Your ob't serv't,
BLANDINA DUDLEY.

The sum thus gracefully tendered swelled the subscription of Mr. Dudley to $76,500—one of the largest contributions to the advancement of science ever made in any age or country during the life time of the donor. When the reading of the letter ceased, the vast assembly arose simultaneously to their feet, and greeted the noble and generous donor with the most enthusiastic cheers.

INAUGURATION OF THE DUDLEY OBSERVATORY.

The ceremonies of inauguration of the Dudley Observatory took place on the 28th of August, 1856, under a tent in the grounds of the Albany Academy, in the presence of over five thousand people, comprising the largest representation of American science and literature, ever witnessed. We present to our readers a large portion of the interesting and eloquent addresses made on the occasion.

Ex-Governor Hunt, in opening the exercises of the inauguration pronounced the following enlogy on Senator Dudley, in whose honor the observatory was named, and in whose commemoration the donations of Mrs. Dudley, had been made.

CHARLES E. DUDLEY was a man whose sterling merits would have ensured a high place among the first citizens of Greece or Rome, in the virtuous age of either Republic, when integrity and patriotism were the only passports to popular eminence. Before proceeding to enlarge upon his character, permit me to observe that he was the friend of my youth, and that many years of intercourse, during which it was my good fortune to receive numerous proofs of his kindness, gave him a strong hold upon my affections. I was indebted to him for wise counsels, for generous patronage, and above all, for a bright example of manliness and honor which animated his whole life and conduct. The memory of these personal relations revives in my breast feelings of gratitude and devotion which time cannot extinguish. Mr. Dudley's career presented a beautiful illustration of the elevating tendency of our free American institutions. Nature had endowed him with a clear vigorous intellect, and high moral susceptibilities. These characteristics were strengthened by timely culture and the purest social influences. In early life he enjoyed unusual advantages for foreign travel, and became conversant with the manners and institutions of other countries. The principles of Commerce, in its grand relations to the public wealth and prosperity, and as a peaceful agency of human progress and civilization, became his favorite subject of investigation. While his acquirements were varied and extensive, he made himself specially familiar with the history of Commerce and Navigation, in ancient and modern times; with the causes which affect their growth and decline; with the practical working of the commercial systems adopted by different nations; and his rich stores of information on these subjects enabled him to render important service to the commercial interests of his own country. His attainments in this department of political economy, and a remarkable faculty for discrimination in deducing from general theories safe practical conclusions, with reference to the actual condition of affairs, qualified him to discuss some of the most difficult questions of commercial policy with a convincing clearness of elucidation. In my intercourse with the world, I have rarely met a statesman whose knowledge on this class of subjects was more complete, or whose observations were more comprehensive and profound.

After devoting some years to the pursuits of commerce, in which his labors were rewarded by abundant success, Mr. Dudley retired from active business and became a citizen of Albany, where he was allied by marriage with one of its most respected and influential families. Among the people of this city, where he passed the remainder of his days, and where his honorable discharge of duty in every relation of life made him "observed of all observers," it would seem unnecessary to dwell upon the virtues which adorned his character, and elicited repeated expressions of public regard and confidence.

In a community so appreciative of merit, it was impossible that such a man should remain in tranquil retirement. From time to time he was called by his fellow citizens to stations of eminent dignity and importance, and he never failed to discharge his trust with fidelity and capacity. He was chosen more than once to preside over the municipal administration of this city, as its Chief Magistrate; and in this position he rendered services which are still remembered with grati-

trade. As a member of the Senate of New York he identified his name with beneficent measures which have contributed largely to the intellectual progress and material prosperity of the State. In him our system of internal improvements found a firm and enlightened supporter. He was an effective advocate of the Erie Canal, at a time when that magnificent undertaking was denounced as visionary, and its completion placed in jeopardy by a strong and determined opposition. But I regard it as his highest merit, as a legislator for the State, that he was a zealous and constant friend of the cause of education. Every measure calculated to diffuse the blessings of knowledge, whether by the extension of our common school system or the creation of new institutions of learning, received from him an earnest and powerful support.

At a subsequent period Mr. Dudley was elected to a seat in the Senate of the United States; a station which he filled with honor to himself and advantage to the country. He was one of the most dignified and respected members of that body at a time when Clay and Webster and Calhoun gave lustre to the Senatorial office. On questions affecting the commercial interests of the country, his thorough knowledge of the laws of trade gave an important weight to his opinions. As a Senator he was distinguished among his peers for ripe intelligence, true patriotism and a spirit of candor which inspired confidence in the rectitude of his motives and the soundness of his judgment. It frequently occurs that these sterling qualities are of more value to the country, in its legislative bodies, than the most brilliant displays of impassioned eloquence. It was Mr. Dudley's fortune to act a prominent part, on the stage of public events in times of intense political excitement. Though decided in his opinions, adhering always to his avowed principles with unyielding firmness, party spirit never ventured to assail the integrity of his conduct, or to question the purity of his intentions. He cherished warm political attachments, yet was he no partizan in the ordinary sense. If he loved Cæsar much, he loved Rome more, and regarded the welfare of his country as paramount to the interests of any party.

On several occasions he exhibited a lofty spirit of independence, in defiance of the most powerful political influences. In every relation, public and private, he was governed by a controlling sense of justice, and discharged his duty with that true moral courage which rejects all fear, except the fear of doing wrong. His personal deportment exhibited that blending of dignity and courtesy which inspires a mingled sentiment of homage and affection. In all the intercourse of life he displayed a refined sense of propriety. Naturally modest and retiring, he avoided no duty, and shrank from no responsibility which a statesman or a citizen can be justly required to assume. He sought no prominence, but accepted the honors which were conferred upon him as a trust for the benefit of his fellowmen.

This is a brief and imperfect outline of the character and career of Charles E. Dudley. Fifteen years have passed away since he departed this life, loved by all who knew him, and most by those who knew him best; honored by his fellowcitizens, and mourned by the country which he had so faithfully served. By the blessing of Providence, his beloved and venerable widow, the partner of his joys and sorrows, and the object of his fondest affections, still survives. To her bereaved spirit, during the long period of her loneliness, the recollection of his virtues and life-long devotion to her happiness, and the hope of re-union in the realms of immortal felicity, have been a source of unfailing consolation.

> "Like lamps in eastern sepulchres,
> Amid my hearts deep gloom,
> Affection sheds its holiest light
> Upon my husband's tomb;
> And as those lamps, if brought once more
> To upper air, grow dim,
> So my soul's love is cold and dead
> Unless it glow for him."

To her has been reserved the pious office of rearing an appropriate monument to his memory. How generously, how nobly this sacred duty has been performed, will be recorded and remembered during all future time! The recollection of her constancy and munificence will be cherished by coming generations, until the earth shall give up its dead. Her tribute of affection to a departed husband is a graceful offering upon the altar of Science and Truth. In preparing a sepulchre and

raising a tomb to perpetuate his memory, she has built an edifice which points to the heavens, and created an instrumentality which shall unfold the mysteries of the spheres and display the wonders of the firmament to mortal vision. By rendering this suitable and deserved honor to his fame, she has immortalized her own. The Dudley Observatory will forever associate the names of both with the highest glories of science, and the most exalted manifestations of beneficence.

REMARKS OF DR. B. A. GOULD.

LADIES AND GENTLEMEN:

The duty has been imposed upon me, by those whose wishes are sufficient commands, and whom it would be more than ingratitude to refuse, of presenting to you a simple statement of the efforts which have been recently made toward the establishment of the observatory of Albany; a temple of science which is not only, as we hope, to render the name of this munificent and hospitable city as classic as it is dear to all our hearts, but at the same time to enshrine the memory of a noble name, and of an affection far more worthily expressed than that of an Artemisia. History tells of Mausolus, a monarch remarkable for his exalted character and his personal beauty. His stricken widow, after falling for a while into the deepest affliction, rose finally above her sorrow, and reared that splendid monument known as a wonder of the world. She gave to it her husband's name, and even now, when thousands of years have passed away, the Mausoleum is a word familiar to your ears. But a more than Artemisia is here—a more than Mausoleum crowns yon verdant summit, from within whose walls shall go out light and truth unto the nations. Such deeds as these demand no common tongue to do them honor—and you know whose tongue is enlisted in their praise. Nor will I forget it. Be mine the simple task to tell the simple tale, and let the eloquence of truth be its simple ornament.

The aspirations of our countrymen for some high educational seminary in the land, that shall receive American youth where the colleges leaves them, and afford the same facilities for the highest culture in specialities that the colleges offer for the general acquisition of information, refinement and taste;—and which shall supply to our own young men the combined sources of knowledge, which they have hitherto been compelled to seek on the other side of the ocean, have within a few years found expression in various places; but nowhere has the effort to bring the aspirations to fulfilment been so vigorous as in this city of Albany. During the summer of 1852, several public meetings were held here in reference to this great end, and perhaps it is not too much to believe that, had not the extraordinary political excitement of the succeeding winter suddenly thwarted the plans of the friends of a national university, the legislature of this state, assembled in yonder capitol, would have enacted into a law that bill, which they had already discussed, and which would have given to this capital city a high pre-eminence as the western home of science, letters and art. But the effort has not been fruitless, and as a part of that great scheme which may, let us hope, yet be carried into effectual reality, it was resolved to found an Astronomical observatory; and the appeals to the liberality of individuals met with a ready and cheerful response. Three gentlemen, Messrs. Thomas W. Olcott, Wm. H. De Witt, and Ezra P. Prentice, immediately contributed $1,000 each, and Mr. De Witt subsequently increased his subscription to $1,500. Gen. Stephen Van Rensselaer contributed several acres of valuable land as an appropriate site for the building. After this, Mrs. Blandina Dudley—a name now known to you all as synonymous with munificence and patriotism, subscribed the sum of $12,000 in token of her respect for the memory of a devoted husband; and in the act of incorporation, the Institution received by vote of the Trustees, as a testimony of their gratitude, the name of Dudley Observatory. Mrs. Dudley mentions it as among her most pleasing reflections, that her distinguished, excellent and affectionate husband cherished during his life-time a special interest in this department of science, and that no appropriation could be made by her more consonant with what his tastes and wishes would undoubtedly have been. The impulse thus given to the plan, prompted to still greater interest; and many more gentleman came forward with contributions until the total sum of $25,000 was secured, with which to erect a building on a larger scale than had been originally contemplated. By the act of incorporation the government of the institution is vested in a board of trustees, of which Gen.

Stephen Van Rensselaer is President; and in order that the building might be in all respects accordant with the present demands of astronomy, the plans were drawn by Messrs. Walter & Wilson, under the direction and supervision of Prof. Mitchel, of Cincinnati, a gentleman who needs no encomium here. The erection of the building in conformity with these plans was intrusted to the supervision of Prof. George R. Perkins, then a resident of Albany, who gave to it his unremitting attention. The building is in the form of a cross, of 84 feet front by 72 in depth,—a tower with revolving cupola rising from the centre, for the reception of the heliometer, or an equatorial telescope, should one hereafter be obtained. The central portion is 28 feet square; the east and west rooms, which are for the meridian instruments, are each about 23 feet square, but large semi-cylindrical projections of 6 feet radius are now building, both north and south, for the reception and protection of collimator piers. The north wing, which is about 40 feet square, contains a room for the library, together with four small rooms, two of which were intended for the use of computers. The cylindrical tower is 22 feet in diameter, revolving upon iron balls.

The foundations of this edifice were laid in the spring of 1853, the building completed within the year, and the charge of the whole enterprise entrusted to Prof. Mitchel. But circumstances rendering him unable to take charge of the Observatory at that time, the building remained for two or three years unoccupied. Still the seed already planted had swelled, germinated, and taken deep root. It has been said that still waters run deepest; and while the Observatory building sat placidly upon the beautiful Van Rensselaer hill, like an uncrowned queen, the hearts of the citizens of Albany were expanding to the reception of that great affection for learning, science and patriotic effort, which characterizes them before the world to-day. The Law-School of the University of Albany was organized, and the Medical School entered upon its new life;—each of these, like the Observatory, forming in name and nature, if not in organization, a part of what we trust may one day become the great National American University.

Thus stood affairs one year ago, at the Providence meeting of the American Association. And now I come to the mention of a name whose sympathetic influence calls up all the generous feelings of the heart, a name which I cannot lightly utter, for it belongs to a man whom to know is to love, and to mention is but to praise. It is his whose agency is evident in all good works; whose thoughtfulness is conspicuous in all kindly actions; his, to whom is in great part due the establishment of many a noble institution in this city of his adoption and his love, forming an imperishable monument of his public spirit; his, whose efforts were among the most untiring in behalf of the University, his, whose mild and gentle persuasiveness, whose modest, retiring, disinterested zeal conferred on this Association a priceless boon under the form of asking one, when he persuaded it to disregard all precedent by returning after the expiration of a single lustrum, and holding now for the second time its session in this great-hearted capital. There is no need of saying that this name is James H. Armsby. God bless him! for he is blessing God's earth, and the world is better that he lives in it.

Dr. Armsby came to Providence a year ago, bearing the invitation from Albany that the Association would hold the session of 1856 in this city. Prof. Peirce was about the same time communicating to astronomers the results of his investigations relative to the determination of the longitude by means of occultations of the Pleiades, and he dwelt upon the great need of fine and precise measurements of the relative positions of the numerous stars of this group. The Superintendent of the Coast Survey had approved this plan and adopted it, as essential in his work. This was enough for Dr. Armsby; he saw in it a means of usefulness for the Dudley Observatory, and on learning that a heliometer was the instrument most appropriate for the class of observations required, he guaranteed upon his own responsibility that Albany would provide one, although none yet existed within the United States. He immediately hastened to Newport to confer with that friend of all noble enterprises, the Hon. John V. L. Pruyn. On finding that Mr. Pruyn had left Newport, he returned to Albany, and after farther conference with Mr. Olcott, came back to Providence with a confirmation of his guarantee, provided that the Coast Survey would take for a while the direction and control of the Observatory for its observations. Within ten days several meetings of public-spirited citizens were held in Albany, which resulted in my departure for Eu-

rope, provided with both the authority and the means of obtaining several instruments of the first class, and proud not merely of being able thus to contribute a humble mite towards the great work, but of the tale which I might tell, and of Albany a city of the western continent. A scientific council was appointed by the Trustees, boasting the great names of Bache, Peirce and Henry. Mrs. Dudley increased her claim to the gratitude of the Observatory and of all lovers of science, by offering $6,000, the estimated purchase-money for the heliometer, and a day or two after, in a beautiful letter to the trustees, she increased the donation to $8,000—or more if needed. Two other gentlemen, through Thomas W. Olcott, Esq., became responsible for a meridian-circle, to be provided, without any limitation as to expense, and Prof. Bache empowered me to order for the Coast-Survey, a transit-instrument of the best possible construction which could be devised. The Hon. Erastus Corning of this city subscribed $1,000 for providing the Observatory with time, and Henry Q. Hawley, Esq., volunteered to supply the apparatus for making and distributing gas according to the new and admirable method of Mr. Aubin. This new and unexpected liberality was inspiring, electrifying. The occasion had no sooner arrived than the ideas and aspirations of Albany grew to meet it. It made one prouder, if possible, while standing on the eastern continent, to call himself an American. The meridian-circle and the transit-instrument were ordered in Berlin. They are of unsurpassed magnitude, and of a new construction, the chief points of which have already been presented to the physical section of the Association which has this day adjourned. And it was my high privilege on that occasion to become the vehicle of the public announcement, that the trustees, at the instance of the Scientific Council, had given to that new and exquisitely beautiful meridian circle the honored name of Olcott, which is already engraved upon it in deep and ineffaceable characters, to endure so long as the instrument itself exists. Not that the name needed the chisel, but that the trustees felt it due to themselves to find some outlet for their overflowing admiration and respect. These instruments are probably already on their way. The sidereal clock was ordered in Altona, and is of a construction still more peculiar than that of the meridian instruments. It will soon be here and be described. The clock for mean time has been made by our accomplished fellow-citizen, Mr. Farmer, of Boston. Its pendulum has no weights, and needs no winding.

Henceforth the visitors to the Observatory will find, on entering the door, a deep niche in front of them, in which will be placed the elegant bust of Charles E. Dudley, sculptured by an Albany artist, the inimitable Palmer, and dedicated by an affectionate widow to the memory of Dudley and the advancement of astronomy. On the right is the great marble dial, three feet square, which shows the Observatory time, beat by the beautiful electro-magnetic pendulum which is swinging on the left, and which is not only to supply this city with its time correct to the fraction of a second, but is to flash it along the electric wire till its little tick be heard upon the lakes and at the ocean, and in all the railroad stations lying between—the stay of the navigator, the guardian of the traveler, the safeguard of human life, and the promoter of human welfare on land and sea. An elegantly engraved marble inscription below it commemorates the name of the donor.

A beautiful chronograph already completed by Mr. Farmer and constructed in conformity with his own ideas on a new and improved principle, is now in the Observatory, to be followed by at least two more. Dials in every room will telegraphically record the time indicated by the normal clock imbedded in the massive pier below; while the Corning clock sends out the corresponding mean or civil time, to the north, south, east and west. Of the scientific bearings of all this, I do not speak, for my duty at present is historical alone.

Of the heliometer nothing has as yet been told you. This is the most delicate, complicated and difficult of construction of all the implements of the astronomer. There seemed but one European artist to whom such a work should be intrusted; and the common voice of the astronomers of every nation pointed to the brothers Repsold of Hamburg, the builders of the magnificent heliometer of Oxford, by far the first of its class. Ladies and gentlemen, the voice of Europe directed with one accord to Repsold. Not so the voice of America. Knowing the splendid triumphs of German and French mechanic art, knowing the exalted reputation that most worthily adorns Repsold's name—the Trustees of the Dudley Ob-

servatory have yet confided the construction of this exquisitely delicate instrument to our countryman, and the great Dudley Heliometer, (for which Mrs. Dudley, who had so munificently raised her $6000 to $8,000, has now raised the $8,000 to $14,500,) is to be built by our countryman Spencer, here in this city of Albany. Ladies and gentlemen, let me assure you, here in the presence of these five thousand witnesses, on this solemn occasion, with the full sense of the responsibility before the whole scientific world which the declaration entails, let me say to you, that the trustees of the Dudley Observatory will never regret it. We have been long indebted to Europe—it is time that Europe should be indebted to America. Mr. Spencer has traversed the European continent since May last, and examined the chief triumphs of instrumental art. He has met, like his countrymen who have preceded him, with a cordial welcome from the great hearts of men like Airy, Johnson, Challis, Argelander, Struve and Encke; and found the open hand of friendship extended to the new star in the terrestrial constellation. The hearts of the astronomers of the old world are beating with us to-day and now. Johnson, Argelander, Hansen, Struve, Peters, know the day and hour, and while we think of them and their cordial aid and fellowship with respectful affection, as we do now, they are thinking of us here, and sending us their unseen, but not unfelt, sympathies and congratulations.

Thus stands the Dudley Observatory to-day, the day of its inauguration. The enlargement of the building needs but a few weeks for its completion. By that time the meridian-instruments will have arrived, and the clocks will be sending their mystic signals to all the dials, even as the Corning clock now ticks above my head. The chronographic apparatus and the heliometer have been ordered, and the means provided for their construction.

Ladies and gentlemen, I shall be pardoned for so long detaining you from the eloquence which we all know to be in store from the golden-mouthed scholar, who has at so much sacrifice come hither to contribute the splendid offering of his oratory. Let me close with a single remark.

The implements are now at hand. But they must be used. Where are the observers, the computers, the books, the houses? Where is the Observatory to look for the means of publishing its results, when once attained? Ladies and gentlemen, the efforts made thus far, must be considered but the beginning—yet as the citizens of this state, and of this, its capital city, have never thus far failed to respond to every demand upon their liberality, as their ideas have always grown to meet the emergency, let us have faith! The eyes of the whole scientific world are upon this patriotic and noble effort. If my instincts lead me right, those eyes may yet be dazzled.

REMARKS OF PROF. A. D. BACHE.

Prof. Bache stated that he had been instructed to make an announcement which though it did not belong immediately to the inauguration of the Dudley Observatory was nevertheless intimately connected with the progress of astronomical science in the United States.

It was known to many whom he addressed that the gentleman who had just closed the lucid and terse account of the organization, and arrangements of the Dudley Observatory, had not many years ago returned from Europe where he had been to study under Gauss, and Schumacher, and Euche, those methods of analysis and of observation which they had done so much to perfect, full of the desire to rival the institutions of the old world by creations in the new. He found observatories established here, and supplied with instruments, and in part with observers, and with the means of publishing from time to time their observations. But no vehicle for the current higher astronomical science of the day, no journal upon the plan of that established by the lamented Schumacher, existed in the country. The importance of such a means of disseminating the results of astronomical research could not be overrated, but its establishment must necessarily be up hill work. Its circulation must be limited to the number of those engaged in practical astronomy, as it could not be popularizing the science appeal to amateurs or to general readers. Such a journal would therefore, unless supported by public funds, be a source of primary loss to its editor or publisher. Such astronomical science Dr. Gould desired to make, and though enjoying none of the emoluments of official position, determined after counsel with a few friends in the Ameri-

can Association for the advancement of Science, and an expression of opinion by the section of Physics, Mathematics and Astronomy to undertake. Thus was established the Astronomical Journal, published at Cambridge. The high scientific ability of the editor and the judicious and careful character of his supervision won for the journal the applause of the highest authorities of the United States and in Europe and the good will of numerous contributors. The patronage of the journal was even smaller than could reasonably have been anticipated, no observatory or institution as such contributing more than merely subscriptions to a limited number of copies of the journal to its support. It is due to the friends of Dr. Gould to say that they did contribute as far as he would permit them to alleviate the pecuniary burthen thus thrown upon him, but the independence of the editor always rebelled against offers of aid, and he preferred from his own moderate means to make the sacrifice required to sustain the publication. His labor should not have been rendered gratuitously, but even this contribution did not suffice; he was called upon to labor in other fields and to devote what was thus acquired to the progress of astronomy in his country. An example of devotion to science which well merits that it should be dragged publicly from its concealment and brought to light before those assembled this day.

The sacrifice is now to cease, a fact which will surprise no one more than the Editor himself. The spirit which has done so much in this city for astronomical science has prompted twelve gentlemen of Albany to contribute the sum necessary to support the Astronomical Journal for six years; and that journal will be hereafter published in connection with the Dudley Observatory of Albany.

Hon. Edward Everett followed with an Address which occupied nearly two hours in the delivery, and which is so admirably an exposition of the uses of Astronomy, that we transfer it almost entire to our pages.

The subscription to the Dudley Observatory stands at present, (October 1,) as follows:

Mrs. Dudley,	$76,500	E. Wickes,	250
T. W. Olcott, (for general fund,)	10,000	R. H. Pruyn,	250
T. W. Olcott, (for building,)	500	Joel Rathbone,	250
Wm. H. DeWitt,	1,500	J. B. Plumb,	250
Ezra P. Prentice,	1,000	J. T. Norton,	250
E. Corning, (clock,)	1,000	R. H. King,	250
J. F. Rathbone,	500	Perry, Treadwell & Co., (furnace,)	200
John Taylor,	500	Jas. Stevenson,	100
Robt. Boyd,	500	H. Q. Hawley,	100
M. T. Reynolds,	500	Chas. L. Austin,	100
R. Dunlap,	500	Rich'd H. Pease,	100
R. Forsyth,	500	Lansing Pruyn,	100
F. & R. Townsend,	500	John J. Hill,	50
W. V. Many,	500	H. & H. Yates,	50
H. Q. Hawley, (for gas works,)	500	A. Osborn,	50
S. H. Ransom,	350	L. S. Parsons,	50
I. W. Vosburgh,	350	John F. Rathbone,	5,000
J. V. L. Pruyn,	250	William H. De Witt,	1,500
J. B. James,	250	Russel Forsyth,	1000
A. Marvin,	250		

VII. THE USES OF ASTRONOMY.

A DISCOURSE DELIVERED AT ALBANY ON THE 28TH OF AUGUST, 1856, ON OCCASION OF THE INAUGURATION OF THE DUDLEY OBSERVATORY: BY EDWARD EVERETT.

[The introduction relative to the History of Albany is omitted.—ED.]

DURING the colonial period, and in the first generation after the revolution, no department of science was, for obvious causes, very extensively cultivated in America,—astronomy perhaps as much as the kindred branches. The improvement in the Quadrant, commonly known as HADLEY'S, had already been made at Philadelphia, by GODFREY, in the early part of the last century, and the beautiful invention of the collimating telescope was made at a later period by RITTENHOUSE, an astronomer of distinguished repute. The transits of Venus of 1761 and 1769 were observed, and orreries were constructed in different parts of the country, and some respectable scientific essays are contained, and valuable observations are recorded in the early volumes of the transactions of the Philosophical Society, at Philadelphia, and the American Academy of Arts and Sciences, at Boston and Cambridge. But, in the absence of a numerous class of men of science to encourage and aid each other, without observatories, and without valuable instruments, little of importance could be expected in the higher walks of astronomical life.

AMERICAN OBSERVATIONS.

The greater the credit due for the achievement of an enterprise commenced in the early part of the present century, and which would reflect honor on the science of any country and any age,—I mean the translation and commentary on Laplaces *Mecanique Celeste*, by Bowditch; a work of whose merit I am myself wholly unable to form an opinion, but which I suppose places the learned translator and commentator on a level with the ablest astronomers and geometers of the day. This work may be considered as opening a new era in the history of American science. The country was still almost wholly deficient in instrumental power; but, the want was generally felt by men of science, and the public mind in various parts of the country began to be turned towards the means of supplying it. In 1825, President John Quincy Adams, brought the subject of a National Observatory before Congress. Political considerations prevented its being favorably entertained at that time; and, it was not till 1842, and as an incident of the exploring expedition, that an appropriation was made for a *depot* for the charts and instruments of the Navy. On this modest basis has been reared the National Observatory, at Washington; an institution which has already taken

and fully sustains an honorable position among the scientific establishments of the age.

Besides the institution at Washington, fifteen or twenty observatories have, within the last few years, been established in different parts of the country; some of them on a modest scale, for the gratification of the scientific taste and zeal of individuals, others on a broad foundation of expense and usefulness. In these establishments, public and private, the means are provided for the highest order of astronomical observation, research, and instruction. There is already in the country an amount of instrumental power, (to which addition is constantly making,) and of mathematical skill, on the part of our men of science, adequate to a manly competition with their European contemporaries. The fruits are already before the world in the triangulation of several of the States, in the great work of the coast survey, in the numerous scientific surveys of the interior of the Continent, in the astronomical department of the exploring expedition, in the scientific expedition to Chili, in the brilliant hydrographical labors of the observatory at Washington, in the published observations of Washington and Cambridge, in the journal conducted by the Nestor of American Science, now in its eighth lustrum; in the *Sidereal Messenger*, the *Astronomical Journal*, and the *National Ephemeris;* in the great chronometrical expeditions to determine the longitude of Cambridge, better ascertained than that of Paris was, till within the last year; in the prompt rectification of the errors in the predicted elements of Neptune, in its identification with Lalande's missing star, and in the calculation of its ephemeris; in the discovery of the satellite of Neptune, of the eighth satellite of Saturn, and of the innermost of its rings; in the establishment both by observation and theory of the non-solid character of Saturn's rings; in the separation and measurement of many double and triple stars, amenable only to superior instrumental power, in the immense labor already performed in preparing Star Catalogues, and in numerous accurate observations of standard stars; in the diligent and successful observation of the meteoric showers; in an extensive series of magnetic observations; in the discovery of an asteroid and ten or twelve telescopic comets; in the resolution of nebulæ, which had defied everything in Europe but Lord Ross's great Reflector; in the application of electricity to the measurement of differences in longitude; in the ascertainment of the velocity of the electro-magnetic fluid, and its truly wonderful uses in recording astronomical observations. These are but a portion of the achievements of American astronomical science within fifteen or twenty years, and fully justify the most sanguine anticipations of its further progress.

How far our astronomers may be able to pursue their researches will depend upon the resources of our public institutions, and the liberality of wealthy individuals in furnishing the requisite means. With the exception of the observatories at Washington and West Point, little can be done, or expected to be done by the government of the Union or the States; but, in this, as in every other department of liberal art and sci-

ence, the great dependence, and may I not add the safe dependence, as it ever has been, must continue to be upon the bounty of enlightened, liberal, and public-spirited individuals.

THE DUDLEY OBSERVATORY.

It is by a signal exercise of this bounty, my friends, that we are called together to-day. The munificence of several citizens of this ancient city, among whom the first place is due to the generous lady, whose name has, with great propriety, been given to the institution, has furnished the means for the foundation of the Dudley Observatory, at Albany. On a commanding elevation, on the northern edge of the city, liberally given for that purpose by the head of a family, in which the patronage of science is hereditary, a building of ample dimensions has been erected, upon a plan which combines all the requisites of solidity, convenience, and taste. A large portion of the expense of the structure has been defrayed by Mrs. Blandina Dudley, to whose generosity, and that of several other public-spirited individuals, the institution is also indebted for the provision which has been made for an adequate supply of first-class instruments, to be executed by the most eminent makers in Europe and America; and which, it is confidently expected, will yield to none of their class in any observatory in the world.

With a liberal supply of instrumental power; established in a community to whose intelligence and generosity its support may be safely confided, and whose educational institutions are rapidly realizing the conception of a university; countenanced by the gentleman who conducts the United States coast survey with such scientific skill and administrative energy; committed to the immediate supervision of an astronomer to whose distinguished talent had been added the advantage of a thorough scientific education in the most renowned universities of Europe, and who, as the editor of the *American Astronomical Journal*, has shown himself to be fully qualified for the high trust; under these favorable circumstances, the Dudley Observatory, at Albany, now takes its place among the scientific foundations of the country and the world.

WONDERS OF ASTRONOMY.

It is no affected modesty which leads me to express the regret that this interesting occasion could not have taken place under somewhat different auspices. I feel that the duty of addressing this great and enlightened assembly, comprising so much of the intelligence of the community and of the science of the country, ought to have been elsewhere assigned; that it should have devolved upon some one of the eminent persons, many of whom I see around me, to whom you have been listening the past week, who, as observers and geometers, could have treated the subject with a master's power; astronomers, whose telescopes have penetrated the depths of the heavens, or mathematician, whose analysis unthreads the maze of their wondrous mechanism. If, instead of commanding, as you easily could have done, qualifications of this kind, your choice has rather fallen on one, making no pretensions to the honorable name of a man of science, but whose delight it has al-

ways been to turn aside from the dusty paths of active life, for an interval of recreation in the green fields of sacred nature in all her kingdoms,—it is, I presume, because you have desired on an occasion of this kind, necessarily of a popular character, that those views of the subject should be presented which address themselves to the general intelligence of the community, and not to its select scientific circles. There is, perhaps, no branch of science, which, to the same extent as astronomy, exhibits phenomena which, while they task the highest powers of philosophical research, are also well adapted to arrest the attention of minds barely tinctured with scientific culture, and even to teach the sensibilities of the wholly uninstructed observer. The profound investigations of the chemist into the ultimate constitution of material nature, the minute researches of the physiologist into the secrets of animal life, the transcendental logic of the geometer clothed in a notation, the very sight of which terrifies the uninitiated, are lost on the common understanding. But the unspeakable glories of the rising and the setting sun; the serene majesty of the moon, as she walks in full-orbed brightness through the heavens; the soft witchery of the morning and the evening star; the imperial splendors of the firmament on a bright, unclouded night; the comet, whose streaming banner floats over half the sky, these are objects which charm and astonish alike the philosopher and the peasant;—the mathematician who weighs the masses and defines the orbits of the heavenly bodies, and the untutored observer who sees nothing beyond the images painted upon the eye.

WHAT IS AN ASTRONOMICAL OBSERVATORY?

An astronomical observatory, in the general acceptation of the word, is a building erected for the reception and appropriate use of astronomical instruments, and the accommodation of the men of science employed in making and reducing observations of the heavenly bodies. These instruments are mainly of three classes, to which I believe all others of a strictly astronomical character may be referred.

1. The instruments by which the heavens are inspected, with a view to discover the existence of those celestial bodies which are not visible to the naked eye, (beyond all comparison more numerous than those which are,) and the magnitude, shapes, and other sensible qualities, both of those which are and those which are not thus visible to the unaided sight. The instruments of this class are designated by the general name of Telescope, and are of two kinds,—the refracting telescope, which derives its magnifying power from a system of convex lenses, and the reflecting telescope, which receives the image of the heavenly body upon a concave mirror.

2. The second class of instruments consists of those which are designed principally to measure the angular distances of the heavenly bodies from each other, and their time of passing the meridian. The transit instrument, the meridian circle, the mural circle, the heliometer and the sextant belong to this class. The brilliant discoveries of astron-

omy are for the most part made with the first class of instruments;—its practical results wrought out by the second.

3. The third class contains the clock, with its subsidiary apparatus for measuring the time and making its subdivisions, with the greatest possible accuracy; indispensable auxiliary of all the instruments, by which the positions and motions of the heavenly bodies are observed, and measured, and recorded.

THE TELESCOPE.

The telescope may be likened to a wondrous cyclopean eye, endued with superhuman power, by which the astronomer extends the reach of his vision to the further heavens, and surveys galaxies and universes, compared with which the solar system is but an atom floating in the air. The transit may be compared to the measuring rod which he lays from planet to planet, and from star to star, to ascertain and mark off the heavenly spaces, and transfer them to his note-book—the clock is that marvelous apparatus by which he equalizes and divides into nicely measured parts a portion of that unconceived infinity of duration, without beginning and without end, in which all existence floats as on a shoreless and bottomless sea.

In the contrivance and the execution of these instruments, the utmost stretch of inventive skill and mechanical ingenuity has been put forth. To such perfection have they been carried, that a single second of magnitude or space is rendered a distinctly visible and appreciable quantity. "They are of a circle," says Sir J. Herschell, "subtended by one second, is less than the 200,000th part of the radius, so that on a circle of six feet in diameter, it would occupy no greater linear extent than 1-5700 part of an inch, a quantity requiring a powerful microscope to be discerned at all."* The largest body in our system, the sun, whose real diameter is 882,000 miles subtends, at a distance of 95,000,000 miles, but an angle of little more than 32; while so admirably are the best instruments constructed, that both in Europe and America is satellite of Neptune, an object of comparatively inconsiderable diameter, has been discovered at a distance of 2,850 millions of miles.

UTILITY OF ASTRONOMICAL OBSERVATIONS.

The object of an Observatory, erected and supplied with instruments of this admirable construction and at proportionate expense, is, as I have already intimated, to provide for an accurate and systematic survey of the heavenly bodies, with a view to a more correct and extensive acquaintance with those already known, and as instrumental power and skill in using it, increase to the discovery of bodies hitherto invisible, and in both classes to the determination of their distances, their relations to each other, and the laws which govern their movements.

Why should we wish to obtain this knowledge? What inducement is there to expend large sums of money in the erection of Observatories, and in furnishing them with costly instruments, and in the support of

* Herschell's Outlines of Astronomy, § 131.

the men of science employed in making, discussing and recording, for successive generations, these minute observations of the heavenly bodies?

In an exclusively scientific treatment of this subject, an inquiry into its utilitarian relations would be superfluous—even wearisome. But on an occasion like the present you will not, perhaps, think it out of place, if I briefly answer the question; what is the use of an observatory, and what benefit may be expected from the operations of such an establishment in a community like ours?

I. In the first place, then, we derive from the observations of the heavenly bodies, which are made at an observatory, our only adequate measures of time and our only means of comparing the time of one place with the time of another. Our artificial time-keepers—clocks, watches, and chronometers, however ingeniously contrived and admirably fabricated, are but a transcript, so to say, of the celestial motions, and would be of no value without the means of regulating them by observation. It is impossible from them under any circumstances to escape the imperfection of all machinery, the work of human hands;—and the moment we remove with our time-keeper east or west, it fails us. It will keep home time alone, like the fond traveler who leaves his heart behind him. The artificial instrument is of incalculable utility, but must itself be regulated by the eternal clock work of the skies.

RELATIONS BETWEEN NATURAL PHENOMENA AND DAILY LIFE.

This single consideration, is sufficient to show how completely the daily business of life is affected and controlled by the heavenly bodies. It is they and not our main-springs, our expansion balances and our compensation pendulums, which give us our time. To reverse the line of Pope:

> 'Tis with our watches as our judgments;—none
> Go just alike, but each believes his own;—

But for all the kindreds and tribes and tongues of men,—each upon their own meridian,—from the Artic pole to the equator, from the equator to the Antarctic pole, the eternal sun strikes twelve at noon, and the glorious constellations, far up in the everlasting belfries of the skies, chime twelve at midnight;—twelve for the pale student over his flickering lamp, twelve amid the flaming glories of Orion's belt, if he crosses the meridian at that fated hour;—twelve by the weary couch of languishing humanity, twelve in the star-paved courts of the Empyrean; twelve for the heaving tides of the ocean; twelve for the weary arm of labor; twelve for the toiling brain; twelve for the watching, waking, broken heart; twelve for the meteor which blazes for a moment and expires; twelve for the comet whose period is measured by centuries; twelve for every substantial, for every imaginary thing, which exists in the sense, the intellect, or the fancy, and which the speech or thought of man, at the given meridian, refers to the lapse of time.

Not only do we resort to the observation of the heavenly bodies for the means of regulating and rectifying our clocks, but the great divisions

of day and month and year are derived from the same source. By the constitution of our nature the elements of our existence are closely connected with celestial times. Partly by his physical organization, partly by the experience of the race from the dawn of creation, man as he is, and the times and seasons of the heavenly bodies are part and parcel of one system. The first great division of time, the *day-night* (nychthemerum,) for which we have no precise synonym in our language, with its primal alternation of waking and sleeping, of labor and rest, is a vital condition of the existence of such a creature as man. The revolution of the year, with its various incidents of summer and winter, and seed-time and harvest, is not less involved in our social, material and moral progress. It is true that at the poles and on the equator, the effects of these revolutions are variously modified or wholly disappear, but as the necessary consequence, human life is extinguished at the poles, and on the equator attains only a languid or feverish development. Those latitudes only in which the great motions and cardinal positions of the earth exert a mean influence, exhibit man in the harmonious expansion of his powers. The lunar period, which lies at the foundation of the *month*, is less vitally connected with human existence and development; but is proved by the experience of every age and race to be eminently conducive to the progress of civilization and culture.

But indispensable as are these heavenly measures of time to our life and progress, and obvious as are the phenomena on which they rest, yet owing to the circumstances that, in the economy of nature, the day, the month, and the year are not exactly commensurable, some of the most difficult questions in practical astronomy are those by which an accurate division of time, applicable to the various uses of life, is derived from the observation of the heavenly bodies. I have no doubt that, to the Supreme Intelligence which created and rules the universe, there is a harmony hidden to us in the numercial relation to each other of days, months and years; but in our ignorance of that harmony, their practical adjustment to each other is a work of difficulty. The great embarrassment which attend the reformation of the calendar, after the error of the Julian period, had, in the lapse of centuries, reached ten (or rather twelve) days, sufficiently illustrates this remark. It is most true that scientific difficulties did not form the chief obstacle. Having been proposed under the auspices of the Roman Pontiff, the protestant world, for a century and more, rejected the new style. It was in various places the subject of controversy, collision and bloodshed.* It was not adopted in England till nearly two centuries after its introduction at Rome; and in the country of Struve and the Pulkova equatorial, they persist at the present day in adding eleven minutes and twelve seconds to the length of the tropical year.

GEOGRAPHICAL SCIENCE.

II. The second great practical use of an Astronomical Observatory is

* Stern's "Himmelskunde," p. 72.

connected with the science of Geography. The first page of the history of our continent declares this truth. Profound meditation on the sphericity of the earth was one of the main reasons which led Columbus to undertake his momentous voyage, and his thorough acquaintance with the astronomical science of that day was, in his own judgment, what enabled him to overcome the almost innumerable obstacles which attended its prosecution.* In return, I find that Copernicus in the very commencement of his immortal work,† appeals to the discovery of America as completing the demonstration of the sphericity of the earth. Much of our knowledge of the figure, size, density, and position of the earth as a member of the solar system is derived from this science, and it furnishes us the means of performing the most important operations of practical geography. Latitude and longitude which lie at the basis of all descriptive geography are determined by observation. No map deserves the name, on which the position of important points has not been astronomically determined. Some even of our most important political and administrative arrangements depend upon the coöperation of this science. Among these I may mention the land system of the United States, and the determination of the boundaries of the country. I believe that till it was done by the Federal Government, a uniform system of mathematical survey had never in any country been applied to an extensive territory. Large grants and sales of public land took place before the Revolution and in the interval between the peace and the adoption of the Constitution; but the limits of these grants and sales were ascertained by sensible objects, by trees, streams, rocks, hills, and by reference to adjacent portions of territory, previously surveyed. The uncertainty of boundaries thus defined, was a never-failing source of litigation. Large tracts of land in the western country granted by Virginia, under this old system of special and local survey, were covered with conflicting claims, and the controversies to which they gave rise formed no small part of the business of the Federal Court after its organization. But the adoption of the present land-system brought order out of chaos. The entire public domain is now scientifically surveyed before it is offered for sale; it is laid off into ranges, townships, sections and smaller divisions with unerring accuracy, resting on the foundation of base and meridian lines; —and I have been informed that under this system, scarce a case of contested location and boundary has ever presented itself in court. The general land office contains maps and plans, in which every quarter-section of the public land is laid down with mathematical precision. The superficies of half a continent is thus transferred in miniature to the bureaus of Washington;—while the local Land Offices contain transcripts of these plans, copies of which are furnished to the individual purchaser. When we consider the tide of population annually flowing

* Humboldt, Histoire de la geographie, &c., Tom. I. p. 77

† Copernicus de Revolutionibus orbium cœlestium, Fol. 2.

into the public domain, and the immense importance of its efficient and economical administration, the utility of this application of Astronomy will be duly estimated.

I will here venture to repeat an anecdote which I heard lately from a son of the late Hon. Timothy Pickering. Mr. Octavius Pickering, on behalf of his father, had applied to Mr. David Putnam of Marietta, to act as his legal adviser, with respect to certain land claims in the Virginia military district, in the State of Ohio. Mr. Putnam declined the agency. He had had much to do with business of that kind and found it beset with endless litigation. "I have never," he added, "succeeded but in a single case, and that was a location and survey made by General Washington before the Revolution, and I am not acquainted with any surveys, except those made by him, but what have been litigated."

At this moment, a most important survey of the coast of the United States is in progress; an operation of the utmost consequence, in reference to the commerce, navigation, and hydrography of the country. The entire work, I need scarce say, is one of practical astronomy. The scientific establishment which we this day inaugurate is looked to for important coöperation in this great undertaking, and will no doubt contribute efficiently to its prosecution.

Astronomical observation furnishes by far the best means of defining the boundaries of States, especially when the lines are of great length and run through unsettled countries. Natural indications, like rivers and mountains, however indistinct in appearance, are in practice subject to unavoidable error. By the treaty of 1783, a boundary was established between the United States and Great Britain, depending chiefly on the course of rivers and highlands dividing the waters which flow into the Atlantic Ocean, from those which flow into the St. Lawrence. It took twenty years to find out which river was the true St. Croix, that being the starting point. England then having made the extraordinary discovery that the Bay of Funday is not a part of the Atlantic Ocean, forty years more were passed in the unsuccessful attempt to re-create the Highlands, which this strange theory had annihilated; and just as the two countries were on the verge of a war, the controversy was settled by compromise. Had the boundary been accurately described by lines of latitude and longitude, no dispute could have arisen. No dispute arose as to the boundary between the United States and Spain, and her successor, Mexico, where it runs through untrodden deserts and over pathless mountains along the 42d degree of latitude. The identity of rivers may be disputed as in the case of the St. Croix; the course of mountain chains is too broad for a dividing line; the division of streams, as experience has shown, is uncertain, but a degree of latitude is written on the Heavenly sphere, and nothing but an observation is required to read the record.

QUESTIONS OF BOUNDARY.

But scientific elements, like sharp instruments, must be handed with scientific accuracy. A part of our boundary between the British Pro-

vinces ran upon the forty-fifth degree of latitude; and about forty years ago, an expensive fortress was commenced by the Government of the United States at Rouse's Point, on Lake Champlain, on a spot intended to be just within our limits. When a line came to be more carefully surveyed, the fortress turned out to be on the wrong side of the line; we had been building an expensive fortification for our neighbor. But in the general compromises of the Treaty of Washington by the Webster and Ashburton Treaty in 1842, the fortification was left within our limits.*

Errors still more serious had nearly resulted a few years since in a war with Mexico. By the treaty of Guadalupe Hidalgo, in 1848, the boundary line between the United States and that country was in part described by reference to the town of El Paso, as laid down on a specified map of the United States, of which a copy was appended to the treaty. This boundary was to be surveyed and run by a joint commission of men of science. It soon appeared that errors of two or three degrees existed in the projection of the map. Its lines of latitude and longitude did not conform to the topography of the region; so that it became impossible to execute the text of the treaty. The famos Mesilla Valley was a part of the debatable ground, and the sum of $10,000,000 paid to the Mexican government, for that and for an additional strip of territory on the southwest, was the smart-money which expiated the inaccuracy of the map; the necessary result perhaps of the want of good materials for its construction.

It became my official duty, in London, a few years ago, to apply to British government for an authentic statement of their claim to jurisdiction over New Zealand. The official *Gazette* for the 2d of October, 1840, was sent me from the Foreign office, as affording the desired information. This number of the *Gazette* contained the proclamations issued by the Lieut. Governor of New Zealand "in pursuance of the instructions he received from the Marquess of Normandy, one of Her Majesty's principal Secretaries of State," asserting the jurisdiction of his Government over the Islands of New Zealand, and declaring them to extend "from 34° 30′ north, to 47° 10′ south latitude." It is scarcely necessary to say, that south latitude was intended in both instances. This error of 69° of latitude, which would have extended the claim of British jurisdiction over the whole breadth of the Pacific, had apparently escaped the notice of that government.

It would be easy to multiply illustrations in proof of the great practical importance of accurate scientific designations drawn from astronomical observations, in various relations connected with boundaries, surveys, and other geographical purposes; but I must hasten to

COMMERCE AND NAVIGATION.

III. A third important department, in which the services rendered by astronomy are equally conspicuous. I refer to commerce and naviga-

* Webster's Works. Vol. I., 110, 115.

tion. It is mainly owing to the results of astronomical observation that modern commerce has attained such a vast expansion, compared with that of the ancient world. I have already reminded you that accurate ideas in this respect contributed materially to the conception in the mind of Columbus of his immortal enterprise, and to the practical success with which it was conducted. It was mainly his skill in the use of astronomical instruments, imperfect as they were, which enabled him, in spite of the bewildering variation of the compass, to find his way across the ocean.

With the progress of the true system of the universe toward general adoption, the problem of finding the longitude at sea presented itself. This was the avowed object of the foundation of the observatory at Greenwich,* and no one subject has received more of the attention of astronomers than those investigations of the lunar theory, on which the requisite tables of the navigator are founded. The pathways of the ocean are marked out in the sky above. The eternal lights of the heavens are the only Pharos whose beams never fail; which no tempest can shake from its foundation. Within my recollection, it was deemed a necessary qualification for the master and the mate of a merchant-ship, and even for a prime hand, to be able to "work a lunar," as it was called. The improvements in the chronometer have in practice, to a great extent, superseded this laborious operation, but observation remains, and unquestionably will forever remain, the only dependence for ascertaining the ship's time, and deducting the longitude from the comparison of that time with the chronometer.

It may, perhaps, be thought that astronomical science is brought already to such a state of perfection that nothing more is to be desired, or at least that nothing more is attainable, in reference to such practical applications as I have described. This, however, is an idea which generous minds will reject, in this as in every other department of human knowledge. In astronomy, as in everything else, the discoveries already made, theoretical or practical, instead of exhausting the science, or putting a limit to its advancement, do but furnish the means and instruments of further progress. I have no doubt we live on the verge of discoveries and inventions, in every department, as brilliant as any that have ever been made; that there are new truths, new facts, ready to start into recognition on every side; and it seems to me there never was an age, since the dawn of time, when men ought to be less disposed to rest satisfied with the progress already made, than the age in which we live; for there never was an age more distinguished for ingenious research, for novel result, and bold generalization.

That no further improvement is desirable in the means and methods of ascertaining the ship's place at sea, no one I think will from experience be disposed to assert. The last time I crossed the Atlantic, I walked the quarter-deck with the officer in charge of the noble vessel, on one occasion, when we were driving along before a leading breeze and under a head of steam, beneath a starless sky at midnight, at the rate certainly

*Grant's History of Physical Astronomy, p. 460.

of ten or eleven miles an hour. There is something sublime, but approaching the terrible, in such a scene;—the rayless gloom, the midnight chill, the awful swell of the deep, the dismal moan of the wind through the rigging, the all but volcanic fires within the hold of the ship; I scarce know an occasion in ordinary life in which a reflecting mind feels more keenly its hopeless dependence on irrational forces beyond its own control. I asked my companion how nearly he could determine his ships' place at sea under favorable circumstances. Theoretically, he answered, I think, within a mile;—practically and usually within three or four. My next question was, how near do you think we may be to Cape Race? that dangerous headland which pushes its iron-bound unlighted bastions from the shore of Newfoundland far into the Atlantic; first land-fall to the homeward-bound American vessel. We must, said he, by our last observations and reckoning, be within three or four miles of Cape Race. A comparison of these two remarks, under the circumstances in which we were placed at the moment, brought my mind to the conclusion, that it is greatly to be wished that the means should be discovered of finding the ship's place more accurately, or that navigators would give Cape Race a little wider berth. Still I do not remember that one of the steam packets between England and America was ever lost on that formidable point.

It appears to me by no means unlikely that, with the improvement of instrumental power, and of the means of ascertaining the ship's time with exactness, as great an advance beyond the present state of art and science in finding a ship's place at sea may take place, as was effected by the invention of the reflecting quadrant, the calculation of lunar tables, and the improved construction of chronometers.

BABBAGE'S DIFFERENCE MACHINE.

In the wonderful versatility of the human mind, the improvement, when made, will very probably be made by paths where it is least expected. The great inducement to Mr. Babbage to attempt the construction of an engine, by which astronomical tables could be calculated and even printed by mechanical means and with entire accuracy, was the errors in the requisite tables. Nineteen such errors, in point of fact, were discovered in an edition of Taylor's logarithms printed in 1796; some of which might have led to the most dangerous results in calculating a ship's place. These nineteen errors, (of which one only was an error of the press,) were pointed out in the *Nautical Almanic* for 1832. In one of these *errata* the seat of the error was stated to be in cosine of 14° 18′ 3″. Subsequent examination showed that there was an error of one second in this correction, and according in the *Nautical Almanac* of the next year, a new correction was necessary. But in making the new correction of one second, a new error was committed of ten degrees. Instead of cosine 14° 18′ 2″ the correction was printed cosine 4° 18′ 2″, making it still necessary, in some future edition of the *Nautical Almanac*, to insert an *erratum* in an *erratum* of the *errata* in Taylor's logarithms.*

* Edinburgh Review, Vol. LIX., 292.

In the hope of obviating the possibility of such errors, Mr. Babbage projected his calculating, or, as he prefers to call it, his difference machine. Although this extraordinary undertaking has been arrested, in consequence of the enormous expense attending its execution, enough has been achieved to show the mechanical possibility of constructing an engine of this kind, and even one of far higher powers, of which Mr. Babbage has matured the conception, devised the notation, and executed the drawings—themselves an imperishable monument of the genius of the author.

I happened on one occasion to be in company with this highly distinguished man of science, whose social qualities are as pleasing as his constructive talent is marvellous, when another eminent *savant*, Count Strzelecki, just returned from his Oriental and Australian tour, observed that he found among the Chinese a great desire to know something more of Mr. Babbage's calculating machine, and especially whether, like their own *swanpan*, it could be made to go into the pocket. Mr. Babbage good-humoredly observed that, thus far, he had been very much out of pocket with it.

INCREASED COMMAND OF INSTRUMENTAL POWER.

Whatever advances may be made in astronomical science, theoretical or applied, I am strongly inclined to think that they will be made in connection with an increased command of instrumental power. The natural order in which the human mind proceeds in the acquisition of astronomical knowledge is minute and accurate observation of the phenomena of the heavens, the skillful discussion and analysis of these observations, and sound philosophy in generalizing the results.

In pursuing this course, however, a difficulty presented itself, which for ages proved insuperable, and which to the same extent has existed in no other science, viz: that all the leading phenomena are in their appearance delusive. It is indeed true that in all sciences, superficial observation can only lead, except by chance, to superficial knowledge; but I know of no branch in which, to the same degree as in astronomy, the great leading phenomena are the reverse of true, while they yet appeal so strongly to the senses, that men who could foretell eclipses, and who discovered the precession of the equinoxes, still believed that the earth was at rest in the centre of the universe, and that all the hosts of heaven performed a daily revolution about it as a centre.

It usually happens in scientific progress, that when a great fact is at length discovered, it approves itself at once to all competent judges. It furnishes a solution to so many problems and harmonizes with so many other facts, that all the other *data*, as it were, crystallize at once about it. In modern times, we have often witnessed such an impatience, so to say, of great truths, to be discovered, that it has frequently happened that they have been found out simultaneously by more than one individual; and a disputed question of priority is an event of very common occurrence. Not so with the true theory of the heavens. So

complete is the deception practiced on the senses, that it failed more than once to yield to the suggestion of the truth; and it was only when the visual organs were armed with an almost preternatural instrumental power, that the great fact found admission to the human mind.

THE COPERNICAN SYSTEM.

It is supposed that in the very dawn of science, Pythagoras or his disciples explained the apparent motion of the heavenly bodies about the earth, by the diurnal revolution of the earth on its axis. But this theory, though bearing so deeply impressed upon it the great seal of truth, *simplicity*, was in such glaring contrast with the evidence of the senses, that it failed of acceptance in antiquity or the middle ages. It found no favor with minds like those of Aristotle, Archimedes, Hipparchus, Ptolemy, or any of the acute and learned Arabian or mediæval astronomers. All their ingenuity and all their mathematical skill were exhausted in the development of a wonderfully complicated and ingenious, but erroneous theory. The great master truth, rejected for its simplicity, lay, disregarded, at their feet.

At the second dawn of science, the great fact again beamed into the mind of Copernicus. Now, at least, in that glorious age which witnessed the invention of printing, the great mechanical engine of intellectual progress, and the discovery of America, we may expect that this long hidden revelation, a second time proclaimed, will command the assent of mankind. But the sensible phenomena were still too strong for the theory; the glorious delusion of the rising and the setting sun could not be overcome. Tycho de Brahe furnished his observatory with instruments superior in number and quality to all that had been collected before; but the great instrument of discovery, which, by augmenting the optic power of the eye, enables it to penetrate beyond the apparent phenomena and to discern the true constitution of the heavenly bodies, was wanting at Uranienburg. The observations of Tycho as discussed by Keppler, conducted that most fervid, powerful and sagacious mind to the discovery of some of the most important laws of the celestial motions; but it was not till Galileo, at Florence, had pointed his telescope to the sky, that the Copernican system could be said to be firmly established in the scientific world.

THE HOME OF GALILEO.

On this great name, my friends, assembled as we are to dedicate a temple to instrumental Astronomy, we may well pause for a moment.

There is much, in every way, in the city of Florence to excite the curiosity, to kindle the imagination, and to gratify the taste. Sheltered on the north by the vine-clad hills of Fiesolé, whose Cyclopean walls carry back the antiquary to ages before the Roman, before the Etruscan power, the flowery city (Fiorenza) covers the sunny banks of the Arno with its stately palaces. Dark and frowning piles of mediæval structure; a majestic dome, the prototype of St. Peter's, basilicas which enshrine the ashes of some of the mightiest of the dead, the stone where Dante stood to gaze on the *campanile*, the house of Michael

Angelo, still occupied by a descendant of his lineage and name; his hammer, his chisel, his dividers, his manuscript poems, all as if he had left them but yesterday;—airy bridges, which seem not so much to rest on the earth as to hover over the waters they span; the loveliest creations of ancient art, rescued from the grave of ages again to "enchant the world;" the breathing marbles of Michael Angelo, the glowing canvas of Raphael and Titian, museums filled with medals and coins of every age from Cyrus the younger; and gems, and amulets, and vases, from the sepulchres of Egyptian Pharaohs coeval with Joseph, and Etruscan Lucumons that swayed Italy before the Romans;—libraries stored with the choicest texts of ancient literature; gardens of rose and orange and pomegranate and myrtle; the very air you breathe languid with music and perfume; such is Florence. But among all its fascinations addressed to the sense, the memory and the heart, there was none to which I more frequently gave a meditative hour during a years' residence, than to the spot where Galileo Galilei sleeps beneath the marble floor of Santa Croce; no building on which I gazed with greater reverence than I did upon the modest mansion at Arcetri, villa at once and prison, in which that venerable sage, by command of the Inquisition, passed the sad closing years of his life; the beloved daughter on whom he had depended to smooth his passage to the grave laid there before him; the eyes with which he had discovered worlds before unknown, quenched in blindness:

> Ahimè! quegli occhi si son fatti oscuri,
> Che vider più di tutti i tempi antichi,
> E luce fur dei secoli futuri.

That was the house "where," says Milton, (another of those of whom the world was not worthy,) "I found and visited the famous Galileo, grown old,—a prisoner to the Inquisition, for thinking on astronomy, otherwise than as the Dominican and Franciscan licensers thought."* Great heavens! what a tribunal, what a culprit, what a crime! Let us thank God, my friends, that we live in the nineteenth century. Of all the wonders of ancient and modern art; statues and paintings, and jewels and manuscripts; the admiration and delight of ages; there was nothing which I beheld with more affectionate awe than that poor rough tube, a few feet in length, the work of his own hands; that very "optic glass" through which the "Tuscan Artist" viewed the moon,

> "At evening from the top of Fesolé,
> Or in Valdarno to descry new lands,
> Rivers, or mountains, in her spotty globe."

that poor little spy-glass (for it is scarcely more) through which the human eye first distinctly beheld the surface of the moon; first discovered the phases of Venus, the satellites of Jupiter, and the seeming handles of Saturn; first penetrated the dusky depths of the heavens; first pierced the clouds of visual error, which, from the creation of the world involved the system of the Universe.

* Milton's Prose works, Vol. I., p. 313.

There are occasions in life in which a great mind lives years of rapt enjoyment in a moment. I can fancy the emotions of Galileo, when, first raising the newly constructed telescope to the heavens, he saw fulfilled the grand prophecy of Copernicus, and beheld the planet Venus crescent like the moon. It was such another moment as that when the immortal printers of Mentz and Strasburg, received the first copy of the Bible into their hands, the work of their divine Art; like that when Columbus, through the gray dawn of the 12th October, 1492, (Copernicus, at the age of 18, was then a student at Cracow) beheld the shores of San Salvador; like that when the law of gravitation first revealed itself to the intellect of Newton; like that when Franklin saw by the stiffening fibres of the hempen cord of his kite, that he held the lightning in his grasp; like that when Leverrier received back from Berlin the tidings that the predicted planet was found.

Yes, noble Galileo, thou art right, *E pur si muove.* "It does move." Bigots may make thee recant it; but it moves nevertheless. Yes, the earth moves, and the planets move, and the mighty waters move, and the great sweeping tides of air move, and the empires of men move, and the world of thought moves, ever onward and upward to higher facts and bolder theories. The inquisition may seal thy lips, but they can no more stop the progress of the great truth propounded by Copernicus and demonstrated by thee, than they can stop the revolving earth.

Close now, venerable sage, that sightless, tearful eye; it has seen what man never before saw—it has seen enough. Hang up that poor little spy-glass—it has done its work. Not Herschell nor Rosse have comparatively done more. Franciscans and Dominicans deride thy discoveries now, but the time will come when from two hundred observatories in Europe and America, the glorious artillery of science shall nightly assault the skies, but they shall gain no conquests in those glittering fields before which thine shall be forgotten. Rest in peace, great Columbus of the Heavens, like him scorned, persecuted, broken-hearted; in other ages, in distant hemispheres, when the votaries of science, with solemn acts of consecration shall dedicate their stately edifices to the cause of knowledge and truth, thy name shall be mentioned with honor!

NEW PERIODS IN ASTRONOMICAL SCIENCE.

It is not my intention, in dwelling with such emphasis upon the invention of the Telescope, to ascribe undue importance, in promoting the advancement of science, to the increase of instrumental power. Too much, indeed, cannot be said of the service rendered by its first application in confirming and bringing into general repute the Copernican system; but for a considerable time, little more was effected by the wondrous instrument, than the gratification of curiosity and taste by the inspection of the planetary phases, and the addition of the rings and satellites of Saturn to the solar family. Newton prematurely despairing of any further improvement in the refracting telescope, applied the

principle of reflection, and the nicer observations now made, no doubt hastened the maturity of his great discovery of the law of gravitation; but that discovery was the work of his transcendant genius and consummate skill.

With Bradley, in 1741, a new period commenced in instrumental astronomy, not so much of discovery as of measurement. The superior accuracy and minuteness with which the motions and distances of the heavenly bodies were now observed, resulted in the accumulation of a mass of new materials, both for tabular comparison and theoretical speculation. These materials formed the enlarged basis of Astronomical Science between Newton and Sir William Herschell. His gigantic reflectors introduced the astronomer to regions of space before unvisited, extended beyond all previous conception the range of the observed phenomena, and with it proportionably enlarged the range of constructive theory. The discovery of a new primary planet and its attendant satellites was but the first step of his progress into the labyrinth of the heavens. Cotemporaneously with his observations, the French astronomers, and especially LaPlace, with a geometrical skill scarcely, if at all, inferior to that of its great author, resumed the whole system of Newton, and brought every phenomenon observed since his time within his laws. Difficulties of fact with which he struggled in vain, gave way to more accurate observations, and problems that defied the power of his analysis yielded to the modern improvements of the calculus.

HERSCHELL'S NEBULAR THEORY.

But there is no *ultima Thule* in the progress of science. With the recent augmentations of telescopic power, the details of the Nebular theory proposed by Sir W. Herschell with such courage and ingenuity have been drawn in question. Many—most—of those milky patches in which he beheld what he regarded as cosmical matter, as yet in an unformed state,—the rudimental material of worlds not yet condensed, have been resolved into stars, as bright and distinct as any in the firmament. I well recall the glow of satisfaction, with which on the 22d of September, 1847, being then connected with the University at Cambridge, I received a letter from the venerable director of the Observatory there, beginning with these memorable words: "You will rejoice with me that the great nebula in Orion has yielded to the powers of our incomparable telescope! . . . It should be borne in mind that this nebula and that of Andromeda [which has been also resolved at Cambridge] are the last strongholds of the nebular theory."*

But if some of the adventurous speculations built by Sir William Herschell on the bewildering revelations of his telescope have been since questioned, the vast progress which has been made in sidereal astronomy, (to which, as I understand, the Dudley Observatory will be particularly devoted,) the discovery of the parallax of the fixed stars, the investigation of the interior relations of binary and triple systems of

* Annals of the Observatory of Harvard College, p. cxxi.

stars, the theories for the explanation of the extraordinary, not to say fantastic, shapes discerned in some of the nebulous systems,—whirls and spirals radiating thorough spaces as vast as the orbit of Neptune,* the glimpses at systems beyond that to which our sun belongs,—these are all splendid results, which may fairly be attributed to the school of Herschell, and will forever insure no secondary place to that name in the annals of science.

RELATIONSHIP OF THE LIBERAL ARTS.

In the remarks which I have hitherto made, I have had mainly in view the direct connection of astronomical science with the uses of life and the service of man. But a generous philosophy contemplates the subject in higher relations. It is a remark as old at least as Plato, and is repeated from him more than once by Cicero, that all the liberal arts have a common bond and relationship.† The different sciences contemplate as their immediate object the different departments of animate and inanimate nature; but this great system itself is but one; and its various parts are so interwoven with each other, that the most extraordinary relations and unexpected analogies are constantly presenting themselves; and arts and sciences seemingly the least connected, render to each other the most effective assistance.

The history of electricity, galvanism, and magnetism, furnishes the most striking illustration of this remark. Commencing with the meteorological phenomena of our own atmosphere, and terminating with the observation of the remotest heavens, it may well be adduced on an occasion like the present. Franklin demonstrated the identity of lightning and the electric fluid. This discovery gave a great impulse to electrical research, with little else in view but the means of protection from the thunder-cloud. A purely accidental circumstance led the Physician Galvani, at Bologna, to trace the mysterious element, under conditions entirely novel both of developement and application. In this new form it became, in the hands of Davy, the instrument of the most extraordinary chemical operations; and earths and alkalis, touched by the creative wire, started up into metals that float on water, and kindle in the air. At a later period, the closest affinities are observed between electricity and magnetism, on the one hand; while on the other the relations of polarity are detected between acids and alkalis. Plating and gilding henceforth become electrical processes. In the last applications of the same subtle medium, it has become the messenger of intelligence across the land and beneath the sea; and is now employed by the astronomer to ascertain the difference of longitudes, to transfer the beats of the clock from one station to another, and to record the moment of his observations with automatic accuracy. How large a share has been borne by America in these magnificent discoveries and

* See the remarkable memoir of Professor Alexander, "on the origin of the forms and the present condition of some of the clusters of stars, and several of the Nebulæ."—*Gould's Astronomical Journal, Vol.* 3, *p.* 95.

† Archias I; de Oratore III, 21.

applications, among the most brilliant achievements of modern science will sufficiently appear from the repetition of the names of Franklin, Henry, Morse, Walker, Mitchell, Lock and Bond.

VERSATILITY OF GENIUS.

It has sometimes happened, whether from the harmonious relations to each other of every department of science, or from rare felicity of individual genius, that the most extraordinary intellectual versality has been manifested by the same person. Although Newton's transcendant talent did not blaze out in childhood, yet as a boy he discovered great aptitude for mechanical contrivance. His water-clock, self-moving vehicle, and mill, were the wonder of the village; the latter propelled by a living mouse. Sir David Brewster represents the accounts as differing, whether the mouse was made to advance "by a string attached to its tail," or by "its unavailing attempts to reach a portion of corn placed above the wheel." It seems more reasonable to conclude that the youthful discoverer of the law of gravitation intended by the combination of these opposite attractions to produce a balanced movement. It is consoling to the average mediocrity of the race to perceive in these sportive essays, that the mind of Newton passed through the stage of boyhood. But emerging from boyhood, what a bound it made as from earth to heaven! Hardly commencing Bachelor of arts, at the age of twenty-four, he untwisted the golden and silver threads of the solar spectrum, simultaneously or soon after conceived the method of fluxions, and arrived at the elemental idea of universal gravity before he had passed to his Master's degree. Master of arts, indeed! That degree, if no other, was well bestowed. Universities are unjustly accused of fixing science in stereotype. That diploma is enough of itself to redeem the honors of academical parchment from centuries of learned dullness and scholastic dogmatism.

But the great object of all knowledge is to enlarge and purify the soul, to fill the mind with noble contemplations, to furnish a refined pleasure, and to lead our feeble reason from the works of nature up to its great Author and Sustainer. Considering this as the ultimate end of science, no branch of it can surely claim precedence of astronomy. No other science furnishes such a palpable embodiment of the abstractions which lie at the foundation of our intellectual system; the great ideas of time, and space, and extension, and magnitude, and number, and motion, and power. How grand the conception of the ages on ages required for several of the secular equations of the solar system; of distances from which the light of a fixed star would not reach us in twenty millions of years, § of magnitudes compared with which the earth is but a foot ball: of starry hosts, suns like our own, numberless as the sands on the shore; of worlds and systems shooting through the infinite spaces, with a velocity compared with which the cannon-ball is a way-worn, heavy-paced traveler!

§ Nichol's Architecture of the Heavens, p. 160.

THE SPECTACLE OF THE HEAVENS.

Much, however, as we are indebted to our observatories for elevating our conceptions of the heavenly bodies, they present, even to the unaided sight, scenes of glory which words are too feeble to describe. I had occasion, a few weeks since, to take the early train from Providence to Boston; and for this purpose rose at two o'clock in the morning. Every thing around was wrapped in darkness and hushed in silence, broken only by what seemed at that hour the unearthly clank and rush of the train. It was a mild, serene midsummer's night; the sky was without a cloud, the winds were whist. The moon, then in the last quarter, had just risen, and the stars shone with a spectral lustre but little affected by her presence; Jupiter, two hours high was the herald of the day; the Pleiades, just above the horizon, shed their sweet influence in the east; Lyra sparkled near the zenith; Andromeda veiled her newly discovered glories from the naked eye in the south; the steady pointers, far beneath the pole, looked meekly up from the depths of the north to their Sovereign.

Such was the glorious spectacle as I entered the train. As we proceeded, the timid approach of twilight became more perceptible; the intense blue of the sky began to soften, the smaller stars, like little children, went first to rest; the sister-beams of the Pleiades soon melted together; but the bright constellations of the west and north remained unchanged. Steadily the wondrous transfiguration went on. Hands of angels hidden from mortal eyes shifted the scenery of the heavens; the glories of night dissolved into the glories of the dawn. The blue sky now turned more softly gray; the great watch stars shut up their holy eyes; the east began to kindle. Faint streaks of purple soon blushed along the sky; the whole celestial concave was filled with the inflowing tides of the morning light, which came pouring down from above in one great ocean of radiance; till at length, as we reached the Blue Hills, a flash of purple fire blazed out from above the horizon, and turned the dewy tear-drops of flower and leaf into rubies and diamonds. In a few seconds the everlasting gates of the morning were thrown wide open, and the lord of day, arrayed in glories too severe for the gaze of man, began his course.

I do not wonder at the superstition of the ancient Magians, who in the morning of the world went up to the hill tops of Central Asia, and ignorant of the true God, adored the most glorious work of his hand. But I am filled with amazement, when I am told that in this enlightened age, and in the heart of the Christian world, there are persons who can witness this daily manifestation of the power and wisdom of the Creator, and yet say in their hearts, "There is no God."

UNDISCOVERED BODIES.

Numerous as are the heavenly bodies visible to the naked eye, and glorious as are their manifestations, it is probable that in our own system there are great numbers as yet undiscovered. Just two hundred

years ago this year, Huyghens announced the discovery of one satellite of Saturn, and expressed the opinion that the six planets and six satellites then known, and making up the perfect number of *twelve*, composed the whole of our planetary system. In 1729, an astronomical writer expressed the opinion that there might be other bodies in our system, but that the limit of telescopic power had been reached, and no further discoveries were likely to be made.* The orbit of one comet only had been definitively calculated. Since that time the power of the telescope has been indefinitely increased; two primary planets of the first class, ten satellites, and forty-three small planets revolving between Mars and Jupiter have been discovered, the orbits of six or seven hundred comets, some of brief period, have been ascertained;—and it has been computed that hundreds of thousands of these mysterious bodies wander through our system. There is no reason to think that all the primary planets, which revolve about the sun, have been discovered. An indefinite increase in the number of asteriods may be anticipated; while outside of Neptune between our sun and the nearest fixed star, supposing the attraction of the sun to prevail through half the distance, there is room for ten more primary planets succeeding each other at distances increasing in a geometrical ratio. The first of these will, unquestionably be discovered as soon as the pertubations of Neptune shall have been accurately observed; and with maps of the heavens on which the smallest telescopic stars are laid down, it may be discovered much sooner.

THE VASTNESS OF CREATION.

But it is when we turn our observation and our thoughts from our own system, to the systems which lie beyond it in the heavenly spaces, that we approach a more adequate conception of the vastness of Creation. All analogy teaches us that the sun which gives light to us is but one of those countless stellar fires which deck the firmament, and that every glittering star in that shinning host is the centre of a system as vast and as full of subordinate luminaries as our own. Of these suns,—centres of planetary systems,—thousands are visible to the naked eye, millions are discovered by the telescope. Sir John Herschell, in the account of his operations at the Cape of Good Hope, (p. 381,) calculates that about five and a half millions of stars are visible enough to be *distinctly counted* in a twenty foot reflector in both hemispheres. He adds that "the actual number is much greater, there can be little doubt." His illustrious father, estimated on one occasion that 125,000 stars passed through the field of his forty foot reflector in a quarter of an hour. This would give 12,000,000 for the entire circuit of the heavens, in a single telescopic zone; and this estimate was made under the assumption that the nebulæ were masses of luminous matter not yet condensed into suns.

These stupendous calculations, however, form but the first column of

* Memoirs of American Academy, S., Vol. iii. 275.

the inventory of the universe. Faint white specks are visible even to the naked eye of a practiced observer in different parts of the heavens. Under high magnifying powers, several thousands of such spots are visible,—no longer however, faint white specks, but many of them resolved by powerful telescopes into vast aggregations of stars, each of which may, with propriety, be compared with the milky way. Many of these nebulæ, however, resisted the power of Sir Wm. Herschell's great reflector, and were, accordingly, still regarded by him as masses of unformed matter, not yet condensed into suns. This, till a few years since, was, perhaps, the prevailing opinion;—and the nebular theory filled a large space in modern astronomical science. But with the increase of instrumental power, especially under the mighty grasp of Lord Rose's gigantic reflector and the great refractors at Pulkova and Cambridge, the most irresolvable of these nebulæ have given way; and the better opinion now is, that every one of them is a galaxy, like our own milky way, composed of millions of suns. In other words, we are brought to the bewildering conclusion that thousands of these misty specks, the greater part of them too faint to be seen with the naked eye, are, not each a universe like our Solar system, but each a "swarm" of universes of unappreciable magnitude.* The mind sinks overpowered by the contemplation. We repeat the words, but they no longer convey distinct ideas to the understanding.

CONCEPTIONS OF THE UNIVERSE.

But these conclusions, however vast their comprehension, carry us out another step forward in the realms of sidereal astronomy. A proper motion in space of our sun and of the fixed stars as we call them has long been believed to exist. Their vast distances only prevent its being more apparent. The great improvement of instruments of measurement within the last generation, has not only established the existence of this motion, but has pointed to the region in the starry vault, around which our whole solar and stellar system with its myriad of attendant planetary worlds, appears to be performing a mighty revolution. If then, we assume that outside of the system to which we belong and in which our sun is but a star like Aldebaran or Sirius, the differerent nebulæ of which we have spoken,—thousands of which spot the heavens—constitute a distinct family of universes, we must, following the guide of analogy, attribute to each of them also, beyond all the revolutions of their individual attendant planetary systems, a great revolution, comprehending the whole; while the same course of analogical reasoning would lead us still further onward, and in the last analysis, require us to assume a transcendental connection between all these mighty systems,—a universe of universes, circling round in the infinity of space, and preserving its equilibrium by the same laws of mutual attraction, which bind the lower worlds together.

It may be thought that conceptions like these are calculated rather

* Humboldt's Cosmos Vol. III, p. 44.

to depress than to elevate us in the scale of being; that, banished as he is by these contemplations to a corner of creation, and there reduced to an atom, man sinks to nothingness in this infinity of worlds. But a second thought corrects the impression. These vast contemplations are well calculated to inspire awe, but not abasement. Mind and matter are incommensurable. An immortal soul, even while clothed in "this muddy vesture of decay," is in the eye of God and reason, a purer essence than the brightest sun that lights the depths of heaven. The organized human eye, instinct with life and soul, which, gazing through the telescope, travels up to the cloudy speck in the handle of Orion's sword, and bids it blaze forth into a galaxy as vast as ours stands, higher in the order of being than all that host of luminaries. The intellect of Newton, which discovered the law that holds the revolving worlds together, is a nobler work of God, than a universe of universes of unthinking matter.

If still treading the loftiest paths of analogy, we adopt the supposition,—to me I own the grateful supposition,—that the countless planetary worlds which attend these countless suns, are the abodes of rational beings like man, instead of bringing back from this exalted conception a feeling of insignificance, as if the individuals of our race were but poor atoms in the infinity of being, I regard it, on the contrary, as a glory of our human nature, that it belongs to a family which no man can number of rational natures like itself. In the order of being they may stand beneath us, or they may stand above us; *he* may well be content with his place who is made "a little lower than the angels."

CONTEMPLATION OF THE HEAVENS.

Finally, my friends, I believe there is no contemplation better adapted to awaken devout ideas than that of the heavenly bodies; no branch of natural science which bears clearer testimony to the power and wisdom of God than that to which you this day consecrate a temple. The heart of the ancient world, with all the prevailing ignorance of the true nature and motions of the heavenly orbs, was religiously impressed by their survey. There is a passage in one of those admirable philosophical treatises of Cicero composed in the decline of life, as a solace under domestic bereavement and patriotic concern at the impending convulsions of the State, in which, quoting from some lost work of Aristotle, he treats the topic in a manner which almost puts to shame the teachings of Christian wisdom.*

* "Praeclare ergo Aristoteles, 'si essent,' inquit, qui sub terra semper habitavissent, bonis et illustribus domicilliis quae essent ornata signis atque picturis, instructaque rebus iis omnibus quibus abundant ii qui beati putantur, nec tamen exissent unquam supra terram; accepissent autem fama et auditone, esse quoddam numen et vim Deorum; deinde aliquo tempore, patefactis terrae faucibus, ex illis abditis sedibus evadere in haec loca quae nos incolimus, atque exire potuissent; cum repente, terram, et maria, coelumque vidissent; nubium magnitudinem, ventorumque vim cognovissent, aspexissentque solem, ejusque tum magnitudinem pulchritudinemque, tum etiam efficientiam cognovissent, quod is diem efficeret, toto coelo luce diffusa; cum autem terras nox opacasset, tum coelum totum cernerent astris distinctum et ornatum, lunaeque luminum varietatem tum crescentis tum senescentis, eorumque

"Nobly does Aristotle observe, that if there were beings who had always lived under ground, in convenient, nay, in magnificent dwellings, adorned with statutes and pictures, and everything which belongs to prosperous life; but who had never come above ground; who had heard, however, by fame and report, of the being and power of the gods; if at a certain time the portals of the earth being thrown open, they had been able to emerge from those hidden abodes to the regions inhabited by us; when suddenly they had seen the earth, the seas, and the sky; had perceived the vastness of the clouds and the force of the winds; had contemplated the sun, his magnitude and his beauty, and still more his effectual power, that it is he who makes the day by the diffusion of his light through the whole sky; and when night had darkened the earth, should then behold the whole heavens studded and adorned with stars, and the various lights of the waxing and waning moon, the risings and the settings of all these heavenly bodies, and the courses fixed and immutable in all eternity; when, I say, they should see these things, truly they would believe that there were gods, and these, so great things, are their works."

There is much by day to engage the attention of the observatory; the sun, his apparent motions, his dimensions, the spots on his disc, (to us the faint indications of movements of unimagined grandeur in his luminous atmosphere,) a solar eclipse, a transit of the inferior planets, the mysteries of the spectrum; all phenomena of vast importance and interest. But night is the Astronomer's accepted time; he goes to his delightful labors when the busy world goes to its rest. A dark pall spreads over the resorts of active life; terrestrial objects, hill and valley, and rock and stream, and the abodes of men disappear; but the curtain is drawn up which concealed the heavenly hosts. There they shine and there they move, as they moved and shone to the eyes of Newton and Galileo, of Kepler and Copernicus, of Ptolemy and Hipparchus; yes, as they moved and shone when the morning stars sang together, and all the sons of God shouted for joy. All has changed on earth; but the glorious heavens remain unchanged. The plow passes over the site of mighty cities; the homes of powerful nations are desolate,—the languages they spoke are forgotten; but the stars that shone for them are shining for us; the same eclipses run their steady cycle; the same equinoxes call out the flowers of spring, and send the husbandman to the harvest; the sun pauses at either tropic as he did when his course began; and sun and moon, and planet and satellite, and star, and constellation, and galaxy, still bear witness to the power, the wisdom and the love, which placed them in the Heavens, and upholds them there.

omnium ortus et occasus, atque in aeternitate ratos immutabilesque cursus; haec cum viderent, profecto esse Deos, et haec tanta opera Deorum esse arbitrarentur." Cicero de Natura Deorum Lib. II § 30.

VIII. A COLLEGE OF ARCHITECTURE.

BY D. B. REID, M. D., F. R. S. E.

THERE are few objects of more universal importance connected with the progress of civilization, than the right development of architecture in all its varied relations to the wants of life. It affects us in the habitations in which we dwell, in the schools in which we are educated, in the business-office and in the manufactory, in our courts of law and in our legislative assemblies, in places devoted to recreation, and in the temples dedicated to the worship of the Creator. In short, wherever man has a place to cover his head, whether it be in the palaces of the affluent or the cellar of the humble poor, in the superb mansion, with its varied suites of apartments, or in the crowded lodging-room that accommodates numbers often to an extent that horrifies those unaccustomed to such scenes, there architecture necessarily holds a leading sway. It adds to the comfort of the family fireside, or produces discomfort, originates disease, and leaves the constitution a prey to physical evils that hasten finally to a fatal termination. In public buildings it may promote the transaction of business and sustain health; or, by defective lighting, acoustics, warming, and ventilating, it may induce oppression, double or treble the efforts required in conducting public affairs, and give an imperfect, indistinct, and confused sound where it would otherwise have been clear and articulate.

But architecture is not only a useful, it is also a fine, art. It presents some of the noblest efforts of human genius, refining and spiritualizing the mind, purifying the taste, and inspiring us with reverence and devotion; or, it may tend to communicate a low and vulgar impression. It presents tangible objects that perpetually appeal to or impress our judgment and imagination. It may not be so precise and definite, so vivid and spirit-stirring as oratory, poetry, music, or painting; still, all great architectural works have a language of their own, that is felt, understood, and appreciated; while even in the humblest cottage neatness and simplicity tell their own tale, particularly where they are in harmony with the surrounding landscape. The late Councillor Beuth, whose position at the head

of one of the most important educational establishments in Prussia, gave him many opportunities of tracing the progress of art and science, upon being asked why he had so many busts of eminent men, and so many patterns of the most beautiful decorations even in the workshops for the artisans, replied that he found they contributed equally to improve their taste and to elevate their habits and associations, and that their operation could be traced on numerous occasions, even where the pupils were not addressed on the subject; their constant presence gradually and almost insensibly, awakened their sensibilities to the beautiful, and taught them to blend it with the useful. In the same manner, proportion, symmetry, and propriety in design and construction have their effect, even where there is no pretension to any unusual refinement. The hand of the architect is perpetually before us, silently and unconsciously moulding our taste, as well as supplying the buildings which we occupy.

But what has society done for the education of the architect, who exercises so important an influence on us in the design and construction of our dwellings and public buildings? Medicine, as well as law and divinity, have had their public establishments for ages; but where are our architectural colleges? the museums, libraries, and schools of construction, acoustics, warming, lighting, ventilating, fireproofing, drainage, and finally, of design and decoration, that should be associated in an extended course of instruction, comprising all these subjects, and such other departments as it is important to associate with them? It is true, that at the most distinguished institutions for education in physical science, instruction is given in natural philosophy, chemistry, mineralogy, geology, drawing, and other subjects that may form, along with an apprenticeship to an architect engaged in the practice of his profession, a sure basis of high professional attainments. But it is considered that these are neither sufficiently numerous and accessible to meet the present wants of society, nor so special in the direction and course of studies as to give the student of architecture parallel advantages with those the student of medicine enjoys. A professorship of architecture is required for the full elucidation of this subject and many professional details to which we have adverted. It is equally true that there are other institutions of an allied character more especially adapted to the mechanic and artisan; but none of these, so far as we have learned, give the extended courses of information now contemplated,

or enjoin the curriculum that would enable a right certificate or diploma to be awarded as the result of successful examination after a complete course of study.

Professional men are well aware that in consequence of the numerous subjects now pressed upon their attention by the wants of the times, the progress of science, and the new resources placed at their disposal in materials for building, in peculiarities of construction, and in the endless varieties of modern appliances for warming, lighting, ventilating, fire-proofing, foundations, acoustic arrangements, design, and decoration, that the junior student, to keep pace with the progress of the day, will require as extended a course of study as is given in any department of learning for other professional pursuits. Even in the days of Vitruvius, that great man not only pointed out the necessity of the architect studying the nature of climate and meteorology, as it was then known, but he appears to have even entertained the opinion that he should have a very considerable acquaintance with medicine to do justice to his profession. He states, "Disciplinam vero medicinæ novisse oportet propter inclinationes cœli quæ Græci χλιμασα dicunt, et aeres locorum qui sint salubres aut pestilentes aquarumque usus; sine his enim rationibus nulla salubris habitatio fieri potest."

There are, no doubt, architects who have expressed the opinion that the science of acoustics has not yet been sufficiently systematized to enable them to trust to it as a guide, in the construction of public buildings; nor are those wanting who have looked upon warming and ventilating as matters that should be assigned to other persons, and that lighting also may be left on the same footing.

But these are not considered the general views of the profession, nor will they bear a very close examination. For example, if the architect designs and executes works without reference to warming and ventilation, or artificial illumination, he may put up a building with serious defects in reference to the plans that may be subsequently proposed for these purposes, and perhaps, unintentionally and without any necessity, construct obstacles to the right treatment of these subjects, which are overcome with difficulty, and only at a great expense. If, however, the onus of all these matters were placed upon the architect, he would be under the necessity of designing, in the first instance, with a view to these objects; he would prepare the structure accordingly; consultations in cases of difficulty would take place before the execution of any structure,

and much expense and inconvenience would be avoided. On the other hand, different individuals, undertaking at first the responsibility of applying plans to a building, controlled by the architect, would be compelled afterwards to decline it, if their plans were modified to suit the architect to an extent to which they could not concur.

Warming, lighting, and ventilating crowded public buildings, occupied at all seasons and at all hours, and with an ever-varying attendance, is a large question, that should be laid down in the design before the building is commenced, whoever may be responsible for the final effect. It is obvious, however, that the medical man is the proper judge of the conditions necessary for health, the architect for design and execution, and to their assistance and co-operation that of the engineer and agriculturist should be invited to assist in placing the drainage and sewerage of cities on a right foundation, and the removal of refuse in a form that is unobjectionable and that contributes essentially, in all great cities, equally to defray the expenses of a right system of cleansing, affording manures of great value from materials that are prone otherwise to run into putrefaction and lay the foundation of disease.

Nothing can be more important to a crowded community than the right adjustment of details that are too often overlooked, particularly in the habitations of the poor, and which, when neglected to an extreme degree, are apt to be the forerunners of pestilence, and sometimes the principal cause of the decay of the city in commerce and all its institutions. Modern chemistry and medicine have pointed out very clearly the right principles on which we ought to proceed, and the best means of applying them in practice. Vitruvius appears to have viewed architecture, in all its bearings, in unison with the knowledge of the day, and to have thoroughly appreciated the great principle of the "commune vinculum scientiarum," and he appealed to the feelings as well as to the understanding when, in reviewing the question generally, he concluded with the observation, "*Philosophia perficit architectum animo magno.*"

It is by no means desirable, nor is it necessary that the architect should, on all occasions, have to refer either to medical men, engineers, or agriculturists. But it is very important that in every village, as well as in large cities, some system or code of regulations should be laid down that may give the benefit of their sanction and experience to all the more important points for which their profes-

sional knowledge is more peculiarly available, and this being made known and enforced where-ever the public health renders it important, the primary object is gained that would lay the foundation of numerous sanitary improvements.

If any should question the importance of the study of architecture being placed on a more systematic footing than it has hitherto occupied, let him study the construction of public and private buildings, and trace in detail, after making himself acquainted with the subject, the number that are defective in some primary want. Let him begin with acoustics, and examine the condition of the House of Representatives in this respect, and he will soon perceive one of the reasons for the new buildings now in progress at Washington. Let him then go to the City Hall at New York, and read, in the recent majority report of the committee recommending plans for a great extension of that building, the complaints made of the present state of the courts of law. Or, if he prefers taking an illustration from public schools, let him study the evidence elicited in this department from hundreds of teachers by the Hon. Henry Barnard, the discourse given recently to a number of teachers at the Hall of the Board of Education of New York, by Dr. Griscom, or the report of Mr. Bulkley on the state of the schools in Brooklyn, and he will see abundant evidence as to the extent to which health must be affected by the want of a right system of ventilation in numerous schools.

Should he desire any illustrations, as to the state of architecture from the other side of the Atlantic, let him examine the recorded complaints of members of Parliament, both as to acoustics and ventilation, and the investigations and experiments made in 1835 and 1836 for establishing data for correcting the old buildings, and placing the new houses on a proper footing; let him then glance at the disputes that arose as to fire-proofing, warming, ventilating, lighting, utility, decorations, and acoustics,—disputes that led a committee of the House of Commons unanimously to support the director of the ventilation, while a committee of the House of Peers supported the architect; and let him also trace the varied proceedings that subsequently ensued, when parliamentary committees, law-pleas, and an arbitration, complicated the primary questions at issue, and he will perceive the great importance of the subject, and striking evidence of the necessity of such steps as are advocated in this communication. Or, let him cross to Paris, and inquire into the history of the Palais Royal or the Tuileries, and make him-

self acquainted with the investigations carried on under the directions of the late ex-king of France, at which he sometimes attended for hours personally, till he became satisfied of the cause, and traced the effect of great receptions, where five thousand invitations were issued, and three thousand seven hundred lamps and candles combined with the respiration of that large company, to deteriorate an atmosphere where there was no means for the discharge of vitiated air, save what the weather might permit, from time to time, by doors and windows.

Or, let him turn aside from public buildings, and view the most humble habitations in London and New York, or of many other large cities on either side of the Atlantic, and the mass of misery, discomfort, and degradation which they present at a cost greater, in general, than would provide the very same localities with comfortable, respectable, and wholesome habitations, and he will then begin to perceive this question of the improvement of architecture in its more extended ramifications. He will soon see and acknowledge its moral as well as its physical influence; that it penetrates to the habitations of individual men in every class of the community, and that there is none more likely to affect the progress of society, the resources, health, and comfort of the poor, the severity of labor, intellectual or bodily, in all indoor occupations, the origin and prevention of disease, and the general diminution of mortality, that is, the extension of the present average duration of human life.

If these be grand and glorious objects, and if the general improvement of architecture constitute one of the means by which they can be essentially promoted, it is difficult to over-estimate the great importance of placing this branch of art and science on the most favorable position for progress that can be assigned to it; and when it is recollected how many affiliated trades and occupations each contribute a share to the modern architecture of large cities, it will become abundantly evident that each in its own department would be benefited by a more extended knowledge of the different positions or special effects which it may be called on to satisfy, as in the most desirable arrangements for heating and ventilating, for the preservation of a pure external atmosphere, for lighting, and numerous local adaptations, as various in detail as the varied climates in which man lives, the occupations with which he may be engaged, and the resources at his command. An harmonious result

is the great object, and for this nothing is more essential than harmonious co-operation in all the varied subdivisions of labor that are necessary for architectural structures, as well as that "design" and superintendence that connects all the individual parts, and is responsible for the final effect.

A glance at the great works of ancient and modern times will undoubtedly prove how much has been done by the genius and perseverance of the architect, notwithstanding the many difficulties with which he has had to contend. But that is no reason why, in a profession that demands so much experience and learning in its higher departments, the plain and obvious means of instruction should not be resorted to that are adopted for other professional pursuits. The apprenticeship to an architect engaged in the practice of his profession is ever variable in the opportunities it affords, in the practice it exhibits, and in the calls which it makes upon the energies of the student. But, as a rule, while it affords opportunities as important to him as the hospital and the surgery does to the student of medicine, initiating him in the practice of his art, and introducing him to the business of life, it is not always practicable for him to lay there that foundation for future excellence, and that broad and comprehensive basis on which his professional knowledge should be founded.

Further, in academical institutions devoted to science, specimens, models, and drawings would necessarily accumulate from year to year in a department devoted to architecture, such as no individual architect could be expected to command. A museum of chemistry and economic geology, showing all the varied resources at the disposal of the architect, the changes to which they are subject from exposure in different climates, and the numerous cements used in different places, with specimens pointing out defects to which they are liable, and the means of correcting them, would form a treasure that would become more valuable each succeeding year. Specimens of all products of art and manufacture might be added, if not comprised in another museum in the same place. Or, to take another example, with how much facility could a public educational establishment commence the collection of a series of plans and sections, accompanied with a minute description of the acoustic construction of different public buildings, of the causes of success or failure in this respect, of their peculiarities as to speaking and hearing, and also in relation to vocal and instrumental music! How

great a fund of valuable information would be secured in this manner, multiplied by exchanges with parallel institutions abroad, and accessible for consultation at all times when a church, a lecture-room, or any other public building is designed!

Further, let it be recollected that wherever there is an existing college devoted to physical science, or any of its departments, there mathematics, chemistry, natural philosophy, geology, and mineralogy are usually taught, and these afford the great foundations on which the studies of the young architect must rest. A comparatively slight addition to these establishments would enable them to secure all the advantages of a college of architecture.

In other places where no such advantages are available, or where a satisfactory arrangement cannot be made, the extent of building, and the number of public works and habitations in progress must determine the probable amount of students and the accommodation required. It should be remembered that a great public object is secured by such institutions, and that numbers may avail themselves of the opportunities which the individual classes present, though the professional architect alone may desire to pursue the full course of study which they embrace. Every facility should be accorded to them, therefore, which municipal authority can bestow, and the architectural museum should always be an addition of great public interest which can be enriched from year to year with models, specimens, and drawings, and form in the progress of time a valuable collection highly useful for the student, and available also for consultation by the professional architect.

In European countries, colleges and professorships of architecture are very thinly scattered, and are in a great measure of very recent institution. Polytechnic institutions, in some cases, give a great amount of architectural information; and technological associations for industrial purposes, as well as schools of mines, arts, and manufactures, including agriculture, have received more extended support. But generally speaking, even in such cities as Berlin and Paris, as well as in London, they have only in recent years been attaining the conviction that the warming, ventilation, acoustics, lighting, and drainage of large buildings, and of individual habitations, can be placed on a much more improved footing than they had previously presented, and combined with resources for preserving a purer external atmosphere than the state of the open gutters in the "Unter den Linden" at Berlin, the cesspools in

Paris, or the condition of the Thames in London, rendered practicable in the buildings in their vicinity. A great school of architecture, accordingly, complete in all the resources which the profession requires, is still a great desideratum, though at Berlin, Paris, and London, we may trace the most extended arrangements hitherto made for this purpose. It will be obvious that until the right relation of warming, and ventilating, and lighting was unfolded in reference to the other departments of architecture, the study of this subject, however much it might be extended as a fine art, could not assume the position it ought to hold, and sustain health in the crowded assemblies, with all the brilliancy of gas-lights and other comparatively modern inventions. The invisibility of the atmosphere has long prevented its importance being recognized in architectural structures, but in proportion as perfection increased in the adjustment of air-tight fittings at doors and windows, the want of fresh air told more and more upon the constitution, and finally led in recent years to a much more systematic series of appliances, by which a perpetual change of air can be sustained, even in the most crowded assembly, if due facilities be provided in the original structure. This may be considered as one of the greatest advantages available for modern buildings, and hence architecture, with all the peculiarities of structure, decoration, and resources required for supplying public buildings with from five or ten to fifty thousand cubic feet of air per minute, presents a more extended and systematic object of study than was contemplated in schools and academies previously instituted.

In some European universities and colleges the institution of professorships of architecture has been resisted or neglected, and no curriculum is enforced on students of architecture, nor diplomas awarded for proficiency; but many architectural associations or institutes have been formed by members of the profession, which are generally attended by their clerks and apprentices when meetings are held for papers or discussions and illustrations of architectural questions; and from the general tone and character of the opinions expressed, there can be no little doubt that the formation of architectural schools will soon ensue. In many cases mechanics' institutions and schools of art have been the principal sources of instruction to artisans and others anxious for information in reference to practical architecture, and these, along with schools of design, have been largely attended by numbers of the working-classes, particu-

larly in London, Edinburgh, Manchester, and Glasgow, while parallel institutions are also found in continental European cities. And it is only justice to the latter to say that they have, in many instances, not only preceded those formed in Great Britain, but manifested their practical effects in the acknowledged pre-eminence in the beauty of the designs and the workmanship shown at the great exhibition in 1851.

But in no country, perhaps, is it likely there will be more building and rebuilding, more laying out of new towns and villages, and a greater extension of large cities, than in America. It is more practically interested, accordingly, in the facilities for the study of architecture, than most other nations.

It may further be anticipated that the increasing education and intelligence of a whole community, and the general progress of arts and manufactures, will dispose the whole population to avail themselves more readily of every well-adjusted practical improvement. How many in modern times have advocated instruction in common things! And how largely is such instruction facilitated when combined with popular lessons in the elements of different branches of human knowledge! The acquisition of the knowledge of individual useful facts must always be important; but we apprehend that those who have shown that the elements of science in a popular form are suitable subjects of instruction, even for the humblest classes, placed the same idea on a more desirable and universal basis. Take, for instance, the facts which chemistry unfolds. Is there any mode by which more available information could be conveyed for ordinary purposes than by teaching systematically and popularly the leading facts it conveys, as to the nature of air, earth, and water, and the production of heat and cold, the nature of fuel, combustion, lamps, gas and candles, &c., &c., &c.? But whether conveyed systematically or in any other manner, this general diffusion of the elements of science, taken in conjunction with the many new resources and occupations to which it gives rise, is an additional reason why the junior architect should have every possible facility given to him in the course of his professional education, that may enable him to combat and overcome the varied details and difficulties he may have to meet in the erection of all the varied works which art and manufactures, as well as public buildings and the habitations of the people, may demand.

CURRICULUM FOR STUDENTS OF ARCHITECTURE.

It is not desirable that any curriculum of architecture should be too rigidly enforced, particularly when first instituted, as the varied opportunities which the individual pupils may have had, their different tastes, progress, and natural capabilities require the judicious exercise of the discretionary power that is necessary in all educational establishments.

The highest honors of the profession should, as a general rule, be accorded only to those who pursue the systematic course required, and pass the necessary examinations; but in conducting these, proper weight should be attached to the fact that some will excel in design, decorations, drawing or painting, others in construction and mechanical arrangements, or in surveying, estimating, and making specifications. Though such subdivisions take place to a great extent where an architect is engaged in large practice, the student should undoubtedly make himself acquainted, as far as he has the opportunity, with all the departments of his profession, as it is impossible for him otherwise to plan, direct, and execute any work confided to his care, and check the operations of his assistants. The public service requires the whole of the necessary work to be done, in whatever manner the details may be carried out, and the more enlarged, accordingly, the basis of his studies, if in right proportion to the time he has to devote to them, the greater will be his confidence and capability in entering on the practice of his profession.

In submitting the following outline as a guide in the consideration of this question, it is presumed that the student shall have had a good elementary education; and should he have received previous information in chemistry, physiology, drawing, and other kindred subjects, it will be an advantage to him in proportion to the extent he may have cultivated them. The right adjustment of preliminary elementary education in science is a matter on which very considerable difference of opinion still exists. For our part, we have been long partial to its introduction when not pushed too far, and every point that is taught is made thoroughly intelligible; nor is it easy to see in what manner the professional student in any department of science can have time to attend to all the varied objects which the progress of the age is now crowding upon his attention, unless the burden is lightened by the introduction of select portions

of science in elementary schools. The selection made could be such as to be important to all the pupils, whatever might be their future occupations.

COURSE OF STUDY RECOMMENDED FOR STUDENTS OF ARCHITECTURE.

I. GENERAL STUDIES, referring to the materials of which the globe is composed, their power and capabilities, and their relations to the human frame.

1. Chemistry—History of the elements of which the globe is composed, and of their combinations.
2. Mechanical Philosophy, including the mutual relations of solids, liquids, and gases.
3. Heat, Light, Electricity, and Magnetism.
4. Mineralogy and Geology.
5. Meteorology.
6. The General Structure and Physiology of the Frame of Man; Principles of Hygiene.

II. SPECIAL STUDIES.

1. The Materials used in Building, natural and artificial—their strength and capabilities.
2. The Principles and Practice of Design and Construction—the different orders and styles of architecture.
3. Outline of the History of Architecture as a Fine and as a Useful Art—the monuments of antiquity—the peculiar works of modern times.
4. Public Buildings, including Schools, Churches, Law-Courts, Prisons, Hospitals, Theatres, and Gymnasia for exercise and recreation.
5. Habitations for the People—extreme importance of the tenement question, and of the right construction of the habitations of the poorer classes in all large cities; its relation to the wants, habits, and morals of the inhabitants.
6. Special Buildings for Trades—Workshops and Manufactories.
7. The construction requisite for Acoustics, Warming, Cooling, Lighting, Ventilating, Fire-proofing, Draining, and Sewerage, the collection and removal of refuse, and the importance of due provision being adjusted for all these purposes before the execution of any building is commenced.
8. The Selection of Sites for Buildings, Superficial Drainage, the peculiarities required in different classes of foundations.
9. The special architecture required in destroying noxious fumes and exhalations from drains, manufactories, and other houses, and for facilitating the cleansing of large cities and villages, and the general preservation of the public health; the objects and conduct of quarantine on shore.
10. The Principles and Practice of Decorations—the influence of colors.
11. Plans, Drawings, and Specifications; architectural books required in conducting business accounts.
12. Preparing Estimates and measuring executed Work.

III. It is presumed that the student will carry on a systematic series of exercises in drawing, perspective as well as plan drawing, including isometrical perspective, that he will equally pursue his mathematical studies in relation to every department of the profession which he may have to cultivate, and engage as soon as his time permits, or so adjust his studies as to enable him to become an apprentice to an architect, where he can see daily the realities of his profession. On the whole, however, nothing should be undertaken, if practicable, that will interfere with the right prosecution of his studies.

IV. Lastly, a workshop and laboratory should be provided, in which the student shall have the opportunity of becoming practically acquainted with Experimental Chemistry, Carpentry, and mechanics generally, and be enabled to test materials, and make or direct the construction of models that will facilitate all his labors.

The union of utility, beauty, and economy are the great desiderata in the study of architecture, and whether we refer to the topics treated in the Hon. H. Barnard's School Architecture, or to Mr. Ruskin's Stones of Venice, or to any other important work on a subject so extensive and inexhaustible as architecture, we shall find ample proof that few practical measures are more intimately associated with the progress of civilization than the right foundation of colleges or schools and museums of architecture.

In the above scheme, nothing has been recommended beyond the imperative wants of the public service, and the demands continually made upon the architect. It is for others to judge how far they have been correctly estimated, and whether the results, if the system be adopted, with such modifications as local circumstances may indicate, would not repay a hundred-fold any outlay which the State, the public, or the profession may expend upon it.

The foundation of a school of Naval Architecture is no less important than that which has engaged our attention in these pages; but this is a question on which at present we do not enter.

NOTE.—Dr. Reid, to whom we are indebted for the foregoing article, is the well-known author of "Illustrations of the Theory and Practice of Ventilation," and is now on a visit to this country. We are rejoiced to learn that arrangements have been made with him for a Course of Lectures on the great practical subject of Sanitary Reform as connected with architecture, domestic and public, with drainage, quarantine, &c., before the Smithsonian Institute at Washington, and the Lowell Institution in Boston.

Dr. Reid's researches on Respiration and Acoustics were conducted principally at his class-room in Edinburgh, and subsequently at the Houses of Parliament, where, for many years, he directed the ventilation of both Houses of Parliament, in the old as well as in the new building, till differences arose between him and the architect, when a committee of the House of Commons sustained him unanimously, while the committee of the House of Peers supported the architect. Dr. Reid never acted there subsequently, except under protest disapproving of the course then pursued at the Houses, and finally carrying his case at an arbitration, where an investigation took place that occupied thirty days. Dr. Reid's plans have been introduced in numerous public works and other buildings; and at St. George's Hall, Liverpool, the municipal authorities sustained him in applying similar arrangements to those that he had proposed for the new Houses. Dr. Reid was consulted by the government both at Paris and St. Petersburg, and has executed many public works in different parts of Great Britain. One architect alone, Thomas Brown, Esq., of Edinburgh, has applied his plan in forty-eight public and private buildings. Dr. Reid had upwards of three thousand professional pupils at Edinburgh, where he taught chemistry, theoretically and practically, before he entered on the acoustics and ventilation of public buildings. He also was one of the Commissioners of Health appointed by the British government in reference to populous districts in England and Wales, and in the year preceding its institution, the committee of the Privy Council on Education distributed a thousand tickets to teachers who attended a course of lectures he gave on public health—tickets and outlines of the course having been sent from the same source to the members of both Houses of Parliament. He has also paid much attention to the subject of quarantine, and ventilated a number of ships. Dr. R. came to this country with a letter from Mr. Buchanan, when American Ambassador in London, to the President. EDITOR.

IX. THE PUBLIC RECEPTION TO GEORGE PEABODY, AT DANVERS.

We are not very fond of fêtes of any kind, or ovations to the living for any degree of merit, but we were gratified beyond any former experience in the Public Reception given to GEORGE PEABODY of London, by the people of Danvers and South Danvers, Mass., in pursuance of a unanimous vote of the two towns, in the grateful acknowledgment of his many acts of liberality, and public spirit, and especially for his establishment and endowment of the Institute for the promotion of knowledge and morality, and for the institution of Prizes for the encouragement of scholarship and good behaviour in the pupils of the Public High Schools. It was a spontaneous and hearty tribute of respect and gratitude by men and women, by old and young, by persons of both sexes, and every employment, to one, who had gone out from among them—with only that culture which an ordinary district school, such as the ordinary district school was fifty years ago, could give to a boy, in attendance only for a few months in each year, and for only three or four years of his life—and with only that capital which is represented by native sagacity, integrity, and a resolute will—and yet by that sagacity, integrity and perseverance achieving a position in the commercial world second to no other individual or house in the great centre of business—and yet everywhere—on either side of the Atlantic, in his days of poverty and of affluence—preserving a republican simplicity of character, dress, manner, a tender filial attachment to the hearth-stone, and friends of his youth, and at all times and everywhere using a portion of his earnings to advance purposes of patriotism, hospitality, humanity and education. If Mr. Peabody had been President of the United States, with lucrative offices in his gift, or a Military Chieftain, fresh from victorious battle-fields, more people could not have turned out to receive him or decorated the streets and houses, public and private with a finer display of arches and flowers, of banners and inscriptions, to greet him on his return, than was done for him, a successful man of business and a gentleman without office and without title. Truly

> ——— "Peace hath her victories,
> No less renowned than war."

The day—the ninth of October, 1856, was a perfect specimen of a bright, warm, autumnal day and of itself disposed the heart to the utterance of thanksgiving and kindly sentiment. At half past nine A. M., Mr. Peabody arrived in his carriage from Georgetown, where his sister resides, at the confines of Danvers, and was received by a cavalcade of some three hundred ladies and gentlemen, under an evergreen arch hung with flags and streamers—and from that point, escorted to South Danvers, where the procession was formed, which gathering length and strength, and variety, proceeded through the principal streets to the Salem line—the stores and shops, the dwellings on either hand, and especially those where his old friends reside, being decorated with tasteful devices and inscriptions, expressive of the sense entertained of the character and services of the guest, too numerous and varied to be remembered or described in detail. Among them we noticed the following:

*The old town of Danvers was divided into two portions by act of Legislature in 1854—to the Southern portion was given the name of South Danvers.

Engraved by J.C.Buttre from a Daguerreotype

George Peabody

OF LONDON, BANKER.

LIBRARY OF THE UNIVERSITY OF MICHIGAN

"Free Schools—the Nation's strength."
"The true value of wealth is right use."
"Action is the life of true virtue."
"Education, a debt due by the present to future generations."
"God loveth the cheerful giver."
"Honor to him who lives to honor his country."
"A friend at home and abroad."
"International Friendship."

The procession was composed as follows:

Escort—Independent Corps of Cadets of Salem, Capt. Foster.
Chief Marshal and aids.
Committee of arrangements, on foot.
Sixty carriages, carrying Mr. Peabody, the Governor of the State, Mayor of Boston, and distinguished guests.
Municipal Authorities of the towns of South Danvers and Danvers, on foot.
Past and present members of Board of Trustees of the Peabody Institute.
Members of the Library and Lyceum Committees, past and present, of the Institute.
Teachers and Pupils of Peabody and Holton High Schools, and the holders of the Peabody Medal.
Grammar, Intermediate and Primary Schools of the two towns.
Citizens and Strangers.
Marshal of Fire Department and Aids.
Engineers and Firewardens of the Fire Departments of the two towns.
Engine Companies arranged in the order of precedence as established under the old Town of Danvers.
Cavalcade of Ladies accompanied by Gentlemen.
Cavalcade of Gentlemen.

At half past 12 o'clock the head of the procession, on the return march, arrived at the Peabody Institute building, in front of which a platform had been erected. The school children and people were collected in immense numbers about the building. On the platform were Mr. Peabody, the committee of arrangements, and invited guests. From this platform the Hon. A. A. Abbott addressed a brief speech of greeting to citizens and guests, and of welcome to Mr. Peabody.

"A few weeks since, information was received that Mr. George Peabody of London, was about to revisit his native country. Whatever emotions may have been excited elsewhere by this news, there was no place where the feeling was so ardent, so deep, so spontaneous as *here*. In the first place, we shared *equally, at least* with others, the general respect for his public character and private virtues. With at least *equal* admiration we looked upon a long career of patient, persevering, successful effort, and over a whole life illuminated by the light of manly honor and christian charity. With certainly *as much* of patriotic pride we regarded that constant endeavor to vindicate the honor of our country in foreign lands, to sustain the credit of the State, to make the American name respectable abroad, and those unceasing labors, successful above aught that diplomacy or arms could accomplish, to strengthen the bonds of fellowship and love between two great and kindred nations, whose true interests and dearest hopes are and must forever be identical and one.

But there was something above and beyond all this, and peculiar, fellow-citizens, to *us*. *Here* was Mr. Peabody's home. *Here* slumbered the honored dust of his fathers. *Here*, "native and to the manor born," he passed his youth and the pleasant days of his early life. *Here* were many of those who had been his school-fellows and playmates. And when young ambition, and devotion to those whom misfortune had made his dependents, and the first stirrings of that great energy, already indicating the future triumph, led him forth to other and broader fields of labor, the eyes of his townsmen, like their prayers and best wishes followed him; and from *that* day to *this*, the events of his life and his whole career have been a part of the public and most treasured property of his town. And all along, what returns have there been and how warmly has this

regard been reciprocated. There has been no time when we have not been in George Peabody's debt. Separated from us by the wide ocean, living amid the whirl and roar of the world's metropolis, engrossed with the weightiest concerns, flattered and caressed by the titled and the great, that "heart untravelled," has yet clung steadfast to its early love. While, wherever his lot has been cast, every worthy object of charity, and every beneficent enterprise has received his ready aid, in an especial manner has he remembered and endowed us. When fire desolated our village and swept away the sacred house where in childhood he listened to those truths which have been the guide and solace of maturer years, *he* helped to rebuild the rafters, and point again the spire to heaven. When a pious local pride would rear an enduring monument to the memory of our fathers, who fell in the first fight of the Revolution, it was *his* bounty, although he lived beneath the very shadow of the crown, from which that revolution snatched its brightest jewel, that assisted in raising the granite pile, and transmitted to future ages the names and heroic deeds of our venerated martyrs. So when, advancing a new step in the course of public education, this town established two High Schools for the better culture of its youth, it was his untiring generosity that awoke new life, and kindled fresh desire for knowledge, by ordaining a system of prize medals, carefully discriminating and judicious, and which will embalm his name in the affections of unborn generations of youthful scholars. And lastly, when four years ago, the town of Danvers celebrated the Centenary of its municipal life, it was the same constant faithful friend that sent to our festival that noble sentiment, "Education"—a debt due from present to future generations,—and, in payment of his share of that debt, gave "to the inhabitants of the town," a munificent sum "for the promotion of knowledge and morality" among them. Since that day his bounty has not spared, but has flowed forth unceasingly, until the original endowment has been more than doubled, and until here, upon this spot, is founded an institution of vast immediate good, and whose benefits and blessings for future years, and upon the generations yet to come, no man can measure.

Such are some of the reasons why the news of Mr. Peabody's contemplated visit to this country was received with peculiar emotions *here*,—why every heart was warmed,—why all the people of one accord desired to see his face and hear his voice,—and why the towns of Danvers and South Danvers, in their corporate capacities and in obedience to the popular will, extended to him on his arrival upon our shores, an invitation to visit their borders. That invitation he accepted. Denying all others he cheerfully embraced this. And now, to-day, we have come forth to meet and greet him. And to-day *he* has come and *here he stands*, our distinguished countryman, our beloved townsman, our noble benefactor and friend!

And now, sir, what shall I say to *you*? and how shall I declare the sentiments and express the feelings of those in whose behalf I speak? Look upon the scene before you! This great throng, ready to break into tumult with joy, yet calm with the stillness of deep emotion,—these thousand of uplifted faces, every countenance radiant and beaming, as every heart is throbbing, with gratitude and love,—*this* and *these* are more expressive than any words of mine, and silence on my part would be more eloquent than speech. The most that I can do, sir, is to bid you *welcome!* And how feeble seems the utterance of the mere word in contrast with the living realization of its deep meaning. From the moment you came within our limits to this hour, in every street, at every corner, at almost every dwelling, in *every* face, you have witnessed its expression. And although, sir, we are unable to display the pomp of great cities or royal pageantry, yet I doubt not that the honest affection which has prompted our humble endeavors, has touched the manly, loving heart which no rude conflicts with the world has been able to harden, and which beats alike and ever true within the Courts of Kings and in its humble village home.

To this and more, Mr. Peabody returned his thanks, acknowledging that while he had felt it necessary to decline many proffered hospitalities, he could not resist the impulse to accept the invitation of his former townsmen and to revisit scenes once so familiar; "and yet this vast gathering, these evidences of respect, these children and grand-children of my old schoolmates and playfellows, these changes which

time has wrought in families, and localities, quite unman me. Though a kind Providence has granted me unusual success in the pursuit of fortune in other lands, I am still at heart the humble boy who left yonder unpretending dwelling, many, very many years ago." Turning to a yard within which over twelve hundred children were gathered he said:

One of the most pleasing and touching incidents of this morning, is the large number of scholars who have come forth to bid me welcome and who now surround me. In addressing a few words to you, my dear young friends, I would bid you remember that but a few years will elapse before you will occupy the same position towards your own children which your parents now hold towards yourselves. The training you are now receiving is a precious talent, for the use or abuse of which each will, on a future day, be called upon to give a severe account. May you then be ready to render up the talent with "usury."

There is not a youth within the sound of my voice, whose early opportunities and advantages are not very much greater than were my own, and I have since achieved nothing that is impossible to the most humble boy among you. I hope many a great and good man may arise among the ranks of Danver's boys assembled here to-day.

Bear in mind, however, that to be truly great, it is not necessary that you should gain wealth and importance. Every boy may become a great man, in whatever sphere Providence may call him to move, steadfast and undeviating. Truth,—fearless and straightforward integrity, and an honor ever unsullied by an unworthy word or action, make their possessor greater than worldly success or prosperity. These qualities constitute greatness; without them you will never enjoy the good opinion of others, or the approbation of a good conscience.

To my young female friends I would say:—Remember that there have been and are, great *women* as well as great men, great in the domestic graces as daughters, as wives, and as mothers, and I trust that future times may record many a name so distinguished, whose seeds of good were sown within this town; and allow me to hope that my eye now rests upon some of them.

May the advice I have given you be impressed upon your young hearts. It is given with great sincerity, by one who has had much experience in the world, and although Providence has smiled upon all his labors, he has never ceased to feel and lament the want of that early education which is now so freely offered to each one of you. This is the first time we have met. It may prove the last, but while I live I shall ever feel a warm interest in your welfare. God bless you all.

At two o'clock the company ladies and gentlemen in about equal numbers, who were provided with tickets, proceeded to a mammoth tent, beneath which tables to accommodate 1500 guests, were spread with a substantial and tasteful repast, after which came "the feast of reason and the flow of soul"—only in portion of which we can transfer to our pages. To the sentiment, proposed by Hon. R. S. Daniels, President of the Day, in an appropriate speech.

A cordial and hearty welcome to the distinguished citizen, eminent merchant and Public Benefactor.

Mr. Peabody responded as follows:

Mr. Chairman, Ladies, and Gentlemen.—The reception you have given me today overpowers me. Few boys ever left New England town under circumstances more humble than I did. None could return more honored—honored, too, where honor is said not to be usual—in his own country and among his own kindred. I feel proud, as well as grateful, at these testimonials, so far beyond my merits, but so gratifying to my heart, and which I shall ever esteem the greatest honor of my life.

You have alluded, Mr. Chairman, to my course as a merchant. Heaven has been pleased to reward my efforts with success; and has permitted me to establish, through my own exertions, a house in the great metropolis of England,

which I think my mercantile friends here present will bear me out in saying sustains a high character and credit throughout the world. Coming back to the home of my childhood, I honestly confess that I feel great pride in this, and I do not believe that you will accuse me of egotism in saying so. I have endeavored in the constitution of its members, and the character of its business, to make it an *American house*, and to give it an American *atmosphere*, to furnish it with American journals, to make it a centre for American news, and an agreeable place for my American friends visiting London. That I have partially succeeded in doing so, I think I may reasonably conclude, from the flattering testimonials which I have received since my arrival in this country.

You have also been pleased to allude to my humble efforts to promote good feeling between Great Britain and the United States, by increasing the social intercourse between my English and American friends. That a cordial alliance ought to exist between these two countries, founded on social intercourse and personal friendship, as well as mutual interests, is an opinion which I share with most persons who have had the opportunity to see both. I am happy indeed, if my humble efforts have aided in promoting such good feeling. If there are two nations on the face of the earth that ought to be connected by the closest ties of mutual good will, they are these two countries. It is not in the language ordinarily used, that I point to the similarity in their institutions—their laws—their language,—and their commercial interests. The exports of this country to Great Britain are larger than to all the world besides; the exports from Great Britain to this country, though not relatively so large, are on an equally gigantic scale; a monetary crisis in one country is generally followed by like results in the other. A change in financial policy on the one side is met by a responsive change on the other. The journals of each country reflect, at length, each other's views and sentiments.

Out of this very intimacy of relations, there grows frequent cause of difference, but I am sure, that notwithstanding the little outbursts of jealousy which occasionally show themselves, England is not less proud of her offspring, than is America of the parent stock. I assure you, that from the universally beloved queen who rules those realms, down to her humblest subject, one feeling of good will towards this country prevails. I say this with the greater confidence since I see around me many gentlemen who have had the opportunity to see for themselves whether these things are so. To none can I appeal with more confidence than to you, sir, (turning to Mr. Everett) who have filled the most important office abroad, in the gift of our government, with so much honor to your own country, and so much satisfaction to those to whom you were accredited.

I have been reminded to-day that one who followed worthily in the footsteps of my friend on the left, has passed away. The corner stone of the Peabody Institute was laid by Abbott Lawrence; but before it was completed, his pure spirit had left this world. I admired him for his practical talents; I respected him for his virtues, and I loved him as a friend. Like myself, he was convinced of the great importance of conciliation, forbearance, and mutual good will between England and America. During his whole mission, he labored earnestly to cultivate these feelings, and I take a melancholy pleasure in adding my humble tribute to his memory, in testifying not only to the profuseness of his own hospitalities, and the constancy of his own labors to these ends, but to the heartiness and zeal with which he co-operated in my more humble efforts. The

memory of such a man as Abbott Lawrence is doubly blessed. Allow me to conclude by proposing a toast:—

"*Our old town of Danvers, as it was constituted in* 1752—*May she know none but civil divisions.*"

After a speech by his Ex-Governor Gardner in acknowledgment of the sentiment proposed in honor of Massachusetts, Edward Everett was called up to speak to the following sentiment:

"*England and America,—Pulchra mater, pulchrior filia,—long may they flourish in the bonds of peace, rivals only in their efforts to civilize and christianize the world.*"

In response to this toast, Mr. Everett spoke substantially as follows:—

Mr. President,—I suppose you have called upon me to respond to this interesting toast, chiefly because I filled a few years ago a place abroad, which made me in some degree the associate of your distinguished guest, in the kindly office of promoting good will between the two great branches of the Anglo-Saxon or Anglo-Norman race (for I do not think it matters much by which name you call it,) "the fair mother and the fairer daughter," to which the toast alludes. At all events, I had much opportunity, during my residence in England, to witness the honorable position of Mr. Peabody in the commercial and social circles of London, his efforts to make the citizens of the two countries favorably known to each other, and generally that course of life and conduct, which has contributed to procure him the well deserved honors of this day, and which shows that he fully enters into the spirit of the sentiment just propounded from the chair.

To the prayer of that sentiment, sir, I fully respond, desiring nothing more ardently in the foreign relations of the country, than that these two great nations may be rivals only in their efforts to promote the welfare and improvement of mankind. They have already done, they are now doing much at home and abroad, to promote that end by the arts of peace. Whenever they co-operate they can sweep everything before them,—when they are at variance, when they pull opposite ways,—it is the annihilation of much of the moral power of both. Whenever England and America combine their influences in promoting a worthy object, it moves forward like a vessel propelled by the united force of wind and steam; but when they are in conflict with each other, it is like the struggle of the toiling engine against the opposing tempest. It is well if the laboring vessel holds her own;—there is danger that she may be crowded under the mountain waves, or drift upon the rocks.

It is quite obvious to remark, on this occasion and on this subject,—while you are offering a tribute of respect to a distinguished man of business—that these two great nations, which are doing so much for the advancement of civilization, are the two leading commercial nations of the world; that they have carried navigation and commerce to a height unknown before. And this consideration, sir, will serve to justify you and your fellow-citizens, if they need justification, for the honors you are bestowing upon the guest of the day, as it will the other communities in different parts of the country, which have been desirous of joining in similar public demonstrations of respect. Without wishing to disparage the services which command respect and gratitude, in the walks of political, military, or literary life, it is natural that in a country like the United States, where commerce is so important an interest, you should be prompt to recognize distinguished merit in the commercial career; a career of which,

when pursued with diligence, sagacity, enterprise, integrity, and honor, I deem it not too much to say, that it stands behind no other in its titles to respect and consideration; as I deem it not too much to say of commerce, in its largest comprehension, that it has done as much in all time, and is now doing as much to promote the general cause of civilization, as any of the other great pursuits of life.

Trace its history for a moment from the earliest period. In the infancy of the world its caravans, like gigantic silk worms, went creeping through the arid wastes of Asia and Africa, with their innumerable legs, and bound the human family together in those vast regions as they bind it together now. Its colonial establishments scattered the Grecian culture all round the shores of the Mediterranean, and carried the adventurers of Tyre and Carthage to the North of Europe and the South of Africa. The walled cities of the middle ages prevented the arts and refinements of life from being trampled out of existence under the iron heel of the feudal powers. The Hanse towns were the bulwark of liberty and property in the north and west of Europe for ages. The germ of the representative system sprang from the municipal franchises of the boroughs. At the revival of letters, the merchant princes of Florence received the fugitive arts of Greece into their stately palaces. The spirit of commercial adventure produced that movement in the fifteenth century which carried Columbus to America, and Vasco di Gama around the Cape of Good Hope. The deep foundations of the modern system of international law were laid in the interests and rights of commerce, and the necessity of protecting them. Commerce sprinkled the treasures of the newly found Indies throughout the western nations; it nerved the arm of civil and religious liberty in the Protestant world; it gradually carried the colonial system of Europe to the ends of the earth, and with it the elements of future independent, civilized, republican governments.

But why should we dwell on the past? What is it that gives vigor to the civilization of the present day but the world-wide extension of commercial intercourse, by which all the products of the earth and of the ocean—of the soil, the mine, of the loom, of the forge, of bounteous nature, creative art, and untiring industry—are brought by the agencies of commerce into the universal market of demand and supply. No matter in what region, the desirable product is bestowed on man by a liberal Providence, or fabricated by human skill. It may clothe the hills of China with its fragrant foliage, it may glitter in the golden sands of California, it may wallow in the depths of the Arctic seas, it may ripen and whiten in the fertile plains of the sunny South, it may spring forth from the flying shuttles of Manchester in England, or Manchester in America—the great world-magnet of commerce attracts it all alike, and gathers it all up for the service of man. I do not speak of English commerce or American commerce. Such distinctions belittle our conceptions. I speak of commerce in the aggregate—the great ebbing and flowing tides of the commercial world—the great gulf streams of traffic which flow round from hemisphere to hemisphere, the mighty tradewinds of commerce which sweep from the old world to the new, that vast aggregate system which embraces the whole family of man, and brings the overflowing treasures of nature and art into kindly relation with human want, convenience and taste.

In carrying on this system, think for a moment of the stupendous agencies that are put in motion. Think for a moment of all the ships that navigate the sea. An old Latin poet, who knew no waters beyond those of the Mediterra-

nean and Levant, says that the man must have had a triple casing of oak and brass about his bosom who first trusted his frail barque on the raging sea. How many thousand of vessels laden by commerce, are at this moment navigating, not the narrow seas frequented by the ancients, but these world-encompassing oceans. Think next of the mountains of brick, and stone, and iron, built up into the great commercial cities of the world; and of all the mighty works of ancient and modern contrivance and structure,—the modes, the lighthouses, the bridges, the canals, the roads, the railways, the depth of mines, the Titanic force of enginery, the delving ploughs, the scythes, the reapers, the looms, the electric telegraphs, the vehicles of all descriptions, which directly or indirectly are employed or put in motion by commerce,—and last, and most important, the millions of human beings that conduct, and regulate, and combine these inanimate, organic, and mechanical forces.

And now, sir, is it any thing less than a liberal profession, which carries a quick intelligence, a prophetic forecast, an industry that never tires: and, more than all, and above all, a stainless probity beyond reproach and beyond suspicion, into this vast and complicated system, and by the blessing of Providence, works out a prosperous result? Such is the vocation of the merchant—the man of business—pursued in many departments of foreign and domestic trade —of finance, of exchange—but all comprehended under the general name of commerce—all concerned in weaving the mighty network of mutually beneficial exchanges which enwraps the world.

I know there is a shade to this bright picture—where among the works or the fortunes of men shall we find one that is all sun-light? Napoleon the First thought he had said enough to disparage England when he had pronounced her a nation of shop-keepers; but we Americans are said by some of our own writers to be slaves of the almighty dollar. But these are sallies of national hostility, or the rebukes which a stern moral sense rightly administers to the besetting sins of individuals or communities. Every pursuit in life, however, has its bright and its dark phase; every pursuit may be followed with a generous spirit for honorable ends, or with a mean, selfish, corrupt spirit, beginning and ending in personal gratification. But this is no more the case with the commercial than any other career. What more difference than the profession of the law, as pursued by the upright counsellor, who spreads the shield of eternal justice over your life and fortune, and the wicked pettifogger who drags you through the thorns and brambles of vexatious litigation? What more different than the beloved physician, the sound of whose soft footstep, as he ascends your stair-case, carries hope and comfort to the couch of weariness and suffering, and the solemn, palavering, impudent quack, who fattens on the fears and frailties of his victims? What more different than the press, which, like the morning sun, sheds light and truth through the land, and the press which daily distils the concentrated venom of personal malice and party detraction from its dripping wings? I believe that the commercial profession is as capable of being pursued with intelligence, honor and public spirit, as any other; and, when so pursued, is as compatible with purity and elevation of character as any other—as well entitled to the honors which a community bestows on those who adorn and serve it—the honors which you this day delight to pay to your friend and guest.

I was not the witness of the commencement of his career abroad; but we all know that it soon fell upon that disastrous period when all American credit

stood low—when the default of some of the States, and the temporary inability of others to meet their obligations, and the failure of several of our monied institutions, threw doubt and distrust on all American securities. That great sympathetic nerve of the commercial world—credit—as far as the United States were concerned, was for the time paralyzed. At that moment, and it was a trying one, our friend not only stood firm himself, but he was the cause of firmness in others. His judgment commanded respect—his integrity won back the reliance which men had been accustomed to place on American securities. The reproach in which they were all indiscriminately involved was gradually wiped away, from those of a substantial character; and if on this solid basis of unsuspected good faith he reared his own prosperity, let it be remembered that, at the same time, he retrieved the credit of the State of which he was the agent, performing the miracle, if I may so venture to express myself, by which the word of an honest man turns paper into gold.

A course like this, however commendable, might proceed from calculation. If it led to prosperity and opulence it might be pursued from motives exclusively selfish. But Mr. Peabody took a different view of the matter, and immediately began to act upon an old-fashioned New England maxim, which I dare say he learned in childhood and carried with him from Danvers, that influence and property have their duties as well as their privileges, and set himself to work to promote the convenience and enhance the enjoyments of his traveling fellow countrymen,—a numerous and important class. The traveler—often the friendless traveler—stands greatly in need of good offices in a foreign land. Several of you, my friends, know this, I am sure, by experience; some of you can say how perseveringly, how liberally, these good offices were extended by our friend, through a long course of years, to his traveling countrymen. How many days otherwise weary have been winged with cheerful enjoyments through his agency; how many otherwise dull hours in health and in sickness enlivened by his attentions!

It occurred to our friend especially to do that on a large scale, which had hitherto been done to a very limited extent, by our diplomatic representatives abroad. The small salaries and still smaller private means (with a single exception) of our ministers at St. James, had prevented them from extending the rites of hospitality as liberally as they could wish to their fellow-citizens abroad. Our friend happily, with ample means, determined to supply the defect, and brought together at the social board from year to year, at a succession of entertainments equally magnificent and tasteful, hundreds of his own countrymen and of his English friends. How much was done in this way to promote kind feeling and mutual good will, to soften prejudice, to establish a good understanding, in a word, to nurture that generous rivalry inculcated in the sentiment to which you have bid me respond, I need not say. I have been particularly requested by my friend Sir Henry Holland, a gentleman of the highest social and professional standing, to state, while expressing his deep regret that he can not participate in this day's festivities, that he has attended several of Mr. Peabody's international entertainments in London, and felt them to be of the happiest tendency in promoting kind feeling between the two countries.

We are bound as Americans, on this occasion particularly, to remember the very important services rendered by your guest to his countrymen who went to England in 1851, with specimens of the products and arts of this country to be exhibited at the Crystal Palace. In most, perhaps in all other countries,

this exhibition had been made a government affair. Commissioners were appointed by authority to protect the interests of the exhibitors, and what was more important, appropriations of money were made to defray their expenses. No appropriations were made by Congress. Our exhibitors arrived friendless, some of them penniless in the great commercial Babel of the world. They found the portion of the Crystal Palace assigned to our country, unprepared for the specimens of art and industry which they had brought with them; naked and unadorned, by the side of the neighboring arcades and galleries, fitted up with elegance and splendor by the richest governments in Europe. The English press began to launch its too ready sarcasms at the sorry appearance which Brother Jonathan seemed likely to make, and all the exhibitors from this country, and all who felt an interest in their success were disheartened. At this critical moment our friend stepped forward; he did what Congress should have done. By liberal advances on his part, the American department was fitted up; and day after day, as some new product of American ingenuity and taste was added to the list—McCormick's reaper, Colt's revolver, Powers's Greek slave, Hobb's unpickable lock, Hoe's wonderful printing presses, and Bond's more wonderful spring governor—it began to be suspected that Brother Jonathan was not quite so much of a simpleton as had been thought. He had contributed his full share, if not to the splendor, at least to the utilities of the exhibition. In fact, the leading journal at London admitted that England had derived more real benefit from the contributions of the United States than from those of any other country.

Our friend, on that occasion, much as he had done in the way mentioned to promote the interest and success of the American exhibitors, and to enable them to sustain that generous rivalry to which the toast alludes, thought he had not done quite enough for their gratification. Accordingly, in a most generous international banquet, he brought together on the one hand the most prominent of his countrymen, drawn by the occasion to London, and on the other hand, the Chairman of the Royal Commission, with other persons of consideration in England, and his British friends generally: and in a loving cup of old Danvers oak pledged them, on both sides, to warmer feelings of mutual good will, than they had before entertained.

In these ways, Mr. President, our friend has certainly done his share to carry into effect the principle of the toast, to which you call upon me to reply. But it is not wholly nor chiefly for these kindly offices and comprehensive courtesies,—nor for the success with which he has pursued the paths of business life, not for the moral courage with which, at an alarming crisis, and the peril of his own fortunes, he sustained the credit of the state he represented,—it is not these services that have called forth these demonstrations of respect. Your quiet village, my friends, has not gone forth in eager throngs to meet the successful financier; those youthful voices have not been attuned to sing the praises of the prosperous banker. No, it is the fellow citizen who, from the arcades of the London exchange, laid up treasure in the hearts of his countrymen; the true patriot who, amidst the splendors of the old world's capital, said in his heart,—"If I forget thee, oh Jerusalem, let my right hand forget her cunning, if I do not remember thee let my tongue cleave to the roof of my mouth;" it is the dutiful and grateful child and benefactor of old Danvers whom you welcome back to his home.

Yes sir, and the property you have invested in yonder simple edifice, and in

providing the means of innocent occupation for hours of leisure,—of instructing the minds and forming the intellectual character not merely of the generation now rising, but of that which shall take their places, when the heads of these dear children, who now grace the table, shall be as gray as mine, and of others still more distant, who shall plant kind flowers on our graves,—it is the property you have laid up in this investment, which will embalm your name in the blessings of posterity, when granite and marble shall crumble to dust. Moth and rust shall not corrupt it; they might as easily corrupt the pure white portals of the heavenly city, where "every several gate is of one pearl." Thieves shall not break through and steal it; they might as easily break through the vaulted sky and steal the brightest star in the firmament.

The great sententious poet has eulogized the "Man of Ross,"—the man of practical unostentatious benevolence,—above all the heroes and statesmen of the Augustan Age of England. Who, he asks—

> "Who hung with woods the mountain's sultry brow?
> From the dry rock, who bade the waters flow?
> Not to the skies in useless columns tost
> Or in proud falls magnificently lost,
> But clear and artless, pouring through the plain,
> Health to the sick, and solace to the swain."

But your Man of Ross, my friends, has taught a nobler stream to flow, through his native village,—that bubbling, sparkling, mind-refreshing, soul-cheering stream, which renews while it satisfies the generous thirst for knowledge,—that noble, unquenchable, thirst "which from the soul doth spring,"—which gains new eagerness from the draught which allays it, forever returning, though forever slaked, to the cool deep fountains of eternal truth.

You well recollect, my Danvers friends, the 16th of June, 1852, when you assembled to celebrate the centennial anniversary of the separation of Danvers from the parent stock. Your pleasant village arrayed herself that day in her holiday robes. Her resident citizens with one accord took part in the festivities. Her children dispersed through the Union, returned that day to the homestead. One long absent was wanting, whom you would gladly have seen among you. But you had not forgotten him, nor he you. He was beyond the sea, absent in body, but present in spirit and in kindly remembrance. In reply to your invitation, he returned, as the custom is, a letter of acknowledgement, enclosing a sealed paper, with an endorsement setting forth that it contained Mr. Peabody's sentiment, and was not to be opened till the toasts were proposed at the public dinner. That time arrived,—the paper was opened,—and it contained the following sound and sensible sentiment:—"Education,—A debt due from the present to future generations."

Now we all know that, on an occasion of this kind, a loose slip of paper, such as a sentiment is apt to be written on is in danger of being lost;—a puff of air is enough to blow it away. Accordingly, just by way of paper-weight: just to keep the sentiment safe on the table; and also to illustrate his view of this new way of paying old debts, Mr. Peabody laid down twenty thousand dollars on the top of his sentiment; and for the sake of still greater security, has since added about as much more. Hence it has come to pass, that this excellent sentiment has sunk deep into the minds of our Danvers friends, and has I suspect, mainly contributed to the honors and pleasures of this day.

But I have occupied, Mr. President, much more than my share of your time;

and on taking my seat, I will only congratulate you on this joyous occasion, as I congratulate our friend and guest at having had it in his power to surround himself with so many smiling faces and warm hearts.

Other sentiments were prepared, and other highly appropriate speeches were made by Mr. Davis, who was Secretary of Legation during Mr. Lawrence's mission to England, by President Walker, and Prof. Felton of Harvard College, by the Mayors of Salem, Cambridge, and Charlestown, and others; but we can only find room for the few remarks of President Walker, in reference to a sentiment complimentary to Harvard College and to an extract from the speech of Mr. Davis.

I desire to return my respectful and grateful acknowledgements for the honorable mention of Harvard College. Having said this, if I consulted my feelings and my discretion, I should sit down; but I consider that I am indebted for the honor of an invitation to be present on this happy occasion, to the circumstance of my connexion with the oldest literary institution in the country; and therefore I cannot be entirely silent when the praises of the Merchant are spoken. Look at our literary institutions throughout the land: it is hardly too much to say, that our colleges, our endowed schools, our public libraries, and our institutes *are what our merchants have made them.* Take away what our Perkinses and our Lawrences have done for us, and we should be compelled to shut up our halls and our lecture-rooms; or rather, we should never have had any halls or lecture-rooms to open. For these reasons, learning (I regret that she has not a better messenger to send here to-day than myself,) for these reasons, learning sends her tribute to this great peaceful celebration, this great moral triumph.

Mr. J. B. C. Davis, of the city of New York, in his address, said that the merchants of New York would have been happy in an opportunity in their own city to render a tribute of respect and affection to one who had done so much to exalt the name of an American merchant—and who had done so much for American credit in difficult times;—"Especially do we remember, and I have been reminded of it to-day by a New York friend who is present, that at the time when a merchant of New York offered to the United States government the use of a vessel, to proceed to the Arctic seas in search of Sir John Franklin, it was the money of George Peabody that fitted out the ***Advance***, and enabled Dr. Kane to make the discoveries which have brought so much honor upon New York, and upon the country."

The contribution by Mr. Peabody of $10,000 toward the expenses of the outfit, secured the sailing of the second expedition of Dr. Kane, and is commemorated by him, by bestowing the name of Peabody on one of the bays in the Arctic sea. In whatever of honor or success attaches to that enterprise of philanthropy and science, the names of Moses H. Grinnell and George Peabody, should be indissolubly associated together,* with the name of Dr. E. K. Kane.

Truly the Reception throughout was a *great moral triumph.*

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*At a recent meeting of the Royal Geographical Society of England, Rear Admiral Beechey presiding, on motion of Sir Roderick Murchison, seconded by Captain Sherard Osborn, it was unanimously voted, that the president should communicate in person to that eminent Arctic Explorer, Dr. Kane, the expression of the sincere regrets of the members that he should be prevented by ill-health from appearing at the meeting to receive the gold Medal of the Society for his arduous and skillful endeavors, under the auspices of Messrs. Grinnell and Peabody, to rescue Sir John Franklin, and the important additions he had made to geographical knowledge.

JOHN KYRLE—THE MAN OF ROSS.

From Pope's MORAL ESSAYS—Epistle Third,—addressed to Allen, Lord Bathurst, *On the Use of Riches.*

After discussing in his terse way the point, whether the invention of money had been more beneficial or detrimental to mankind, the Poet draws pictures of various characters, but too well known in his day for their abuse of wealth, and for the shameful end to which they came at last, and then passing a deserved compliment on Lord Bathurst and Lord Oxford, asks:

But all our praises why should lords engross?
Rise, honest Muse! and sing the Man of Ross:
Pleas'd Vaga echoes through her winding bounds,
And rapid severn hoarse applause resounds.
Who hung with woods yon mountain's sultry brow?
From the dry rock who bade the water flow?
Not to the skies in useless column tost,
Or in proud falls magnificently lost,
But clear and artless, pouring through the plain
Health to the sick and solace to the swain.
Whose causeway parts the vale with shady rows?
Whose seats the weary traveler repose?
Who taught that heaven-directed tower to rise?
"The Man of Ross," each lisping babe replies.
Behold the market-place with poor o'erspread,
The Man of Ross divides the weekly bread:
He feeds yon almshouse, neat, but void of state,
Where age and want sits smiling at the gate:
Him portion'd maids, apprentic'd orphans blest,
The young who labor the old who rest.
Is any sick? the Man of Ross relieves,
Prescribes, attends, the medicine makes and gives.
Is there a variance? enters but his door,
Balk'd are the courts and contest is no more:
Despairing quacks with curses fled the place,
And vile attorneys, now a useless race.
B. Thrice happy man! enabled to pursue
What all so wish, but want the power to do!
Oh say, what sums that generous hand supply?
What mines to swell that boundless charity?
P. Of debts and taxes, wife and children clear,
This man possess'd five hundred pounds a year.
Blush, grandeur, blush! proud courts, withdraw your blaze,
Ye little stars! hide your diminished rays.
B. And what? no monument, inscription, stone,
His race, his form, his name almost unknown?
P. Who builds a church to God and not to fame,
Will never mark the marble with his name:
Go, search it there, where to be born and die,
Of rich and poor makes all the history:
Enough that virtue fill'd all the space between,
Prov'd by the ends of being to have been.

THE MAN OF ROSS immortalized in the above lines, was John Kyrle—a native of the parish of Dymock, in Gloucestershire and a descendant of John Hampden. He was born in 1664 and educated at Baliol College, Oxford, and took up his residence soon after in Ross on a small property given him by his father, and which he enlarged by the purchase of an estate on the banks of the Wye—"the Sylvan Wye of Wordsworth" on which Tintern Abbey stands.

The title of "The Man of Ross" was given to him by a country friend, in his lifetime; and Mr. Kyrle was highly pleased with the appellation, because it "conveyed a

notion of plain honest dealing and unaffected hospitality." The principal addition to his landed property was an estate, called the Cleve, consisting of fields that extend along the left bank of the river, but raised considerably above its level. Along the skirts of these fields, Mr. Kyrle made a public walk, which still bears his name; he planted it with elms, and continued the plantation down the steep sides of the bank, which overhang the graceful, ever-winding Wye. It is to this plantation that Pope alludes in the lines,—

Who hung with woods the mountain's sultry brow?

Mr. Kyrle's income has been pretty accurately stated at £500 a year. His favorite occupations were building and painting, in which his skill and taste were as freely exerted for the benefit of his friends as on his own improvements; he frequently planned and superintended architectural works, for persons who gladly availed themselves of his skill and taste.

While improving his own property, he added to the beauties of his favorite spot, and freely imparted to his townsmen the advantages which he had provided for the enjoyment of the lovely scenery around him. The churchyard was planted with elms by Kyrle, and a gate was erected by him leading to a field called "The Prospect," from its commanding a noble view of the rich scenery of the Wye. In times when the art of conveying water by pipes, for the accommodation of all the dwellers in a town, was yet in its infancy, a great benefit was conferred on the inhabitants of Ross, by the skill and enterprise of Mr. Kyrle, who made, in this field, an oval basin of considerable extent, lined it with brick, and paved it with stone, and caused the water from the river to be forced into it by an engine, and conveyed by under-ground pipes to the public cocks in the streets. When a more effectual mode of supply was introduced, the use of the fountain was abandoned, and the basin was filled up. This public work is recorded by the poet, in the lines,—

From the dry rock, who bade the waters flow?
Not to the skies, in useless columns tost,
Or in proud falls magnificently lost:
But clear and artless, pouring through the plain
Health to the sick, and solace to the swain.

The next work noticed by Pope is a causeway, which was constructed through the exertions of Mr. Kyrle, and paid for by a subscription, to which he largely contributed. It crossed the low ground between the town and the bridge, on the high road to Hereford and Monmouth. This causeway has been since extended, and rendered permanent by the Commissioners of Turnpikes, who have converted it into a spacious driving-way, better adapted to the more frequent and rapid journeyings of modern times.

The walk in the Cleavefields above alluded to, was not only beautified with elms, his favorite tree, but seats were placed at intervals, where the "weary traveler" might "repose," or the lover of fine scenery contemplate at his ease, the beauties before him.

The passage which relates to the church of Ross is calculated to convey an erroneous notion of what was actually done by Mr. Kyrle. The line

Who taught that heaven directed spire to rise?

coupled with another,—

Who builds a church to God, and not to fame;

has led many to suppose, that the church was built by Kyrle. The facts are these:

The elegant spire which ornaments the landscape from whatever point it be viewed, was at one time in a dangerous state, which Mr. Kyrle's knowledge of architecture led him to discover. A parish meeting was convened at his special motion, and about forty-seven feet of the spire taken down and rebuilt, himself daily inspecting the work and contributing, over and above the assessment, towards its speedy conclusion. The great bell was given by Kyrle, who attended when it was cast at Gloucester, and threw into the melting pot his large own silver tankard, having first drunk his favorite toast of "Church and King."

Behold the market-house, with poor o'erspread,
The Man of Ross divides the weekly bread.

The distribution of the "weekly bread" at the market-house is a circumstance of peculiar interest in the life of Kyrle. The donation of bread was furnished by a grant, renewed by successive lords of the manor, of certain tolls on all corn brought to market. The man of Ross acted as the lord's almoner. Tradition reports, in homely language, that "it would have done one's heart good to see how cheerful the old gentlemen looked, while engaged in the distribution." At length the toll, thus voluntarily transferred to the poor at the will of each succeeding lord, was claimed by the townsmen as their's of right. The question was referred to the Man of Ross by consent of both parties; and he, preferring truth and justice before popularity and self-gratification, determined, as the evidence compelled him to do, that the toll belonged to the lord. So are pride and covetousness found in communities as well as individuals.

The remaining lines refer to various private acts of charity, for which a man of Kyrle's noble disposition would find frequent opportunities in whatever part of the world he might be placed. The town of Ross could tell of many who, before and since his time, and at this day, clothe the naked, feed the hungry, instruct the ignorant, and teach the infant's tongue to praise the name of Creator and Redeemer.

There is, however, one anecdote of Mr. Kyrle, which we are unwilling to omit, as it exhibits that noble confidence, which none but an honest man can feel or express towards his fellow-man. About a year after the death of the Man of Ross, a tradesman of the town came to the executor, and said privately to him, "Sir, I am come to pay you some money that I owed to the late Mr. Kyrle." The executor declared he could find no entry of it in the accounts. "Why, sir," said the tradesman, "that I am aware of. Mr. Kyrle said to me, when he lent me the money, that he did not think I should be able to repay it in his lifetime, and that it was likely you might want it before I could make it up; and so, said he, I wont have any memorandum of it, besides what I write and give you with it; and do you pay my kinsman when you can; and when you show him this paper, he will see that the money is right, and that he is not to take interest."

The Man of Ross died in 1754, at the advanced age of ninety, a bachelor. At the time of his decease, he owed nothing, and there was no money in his house. He was borne to the grave by his workmen and usual attendants, and amidst the whole population of Ross.

Though he disliked large parties, his house was open to the reception of his friends, in the genuine spirit of old-fashioned English hospitality. "He loved a long evening; enjoyed a merry tale, and always appeared discomposed when t'was time to part." His dishes were generally plain; malt liquor and cider were the only beverages introduced; there was no roast beef except on Christmas-day. At his kitchen fire-place was a large block of wood, for poor people to sit on; and a piece of boiled beef and three pecks of flour, in bread, were given to the poor every Sunday. The Man of Ross was a daily attendant at the service of the parish church. When the chiming of the bells began, all business ceased with him; he washed his hands and proceeded to his pew. When the church was newly pewed, about twenty years after his death, the rector and parishioners resolved that Mr. Kyrle's seat should remain, as it does at this day, in its original condition and style. A handsome tablet, with a bust of the Man of Ross, has long since removed the stigma imputed in the concluding lines of Pope's eulogy of Kyrle.

The Man of Ross, then, it has been seen, was a private gentleman of small fortune, with a talent for architecture, and a taste for what is now termed the picturesque, which he employed in the improvement and adorning of his town and neighborhood. Simple in his manners, he lavished no money on gaudy show or equipage. Faithful to his God, and upright in his dealings with man; intelligent, active, and ingenious; he was confided in as a friend, as an umpire, as a receiver and disposer of the subscriptions of others, whether to be employed in works for the public good, or in relieving the wants of indigence and age.

X. LETTERS TO A YOUNG TEACHER.

BY GIDEON F. THAYER,

Late Principal of Chauncy-Hall School, Boston.

I MAY seem to you to have lingered unnecessarily long in the field of moral preparation for the work you have before you; but I am, continually, more and more convinced that the highest objects of school education are to be secured by reflecting upon this element in your vocation, and fixing the principles and indicating the plans of action to be adopted when entering on the scene of actual labor.

This letter I propose to devote to the consideration of some miscellaneous points, in pursuance of the idea above suggested; and, in my next, to take up some one of the subjects of specific school study.

In my September letter, I condemned the course of Mr. Regulus, not only because he lost his self-control, but because he employed sarcasm and irony in his discipline; and this, too, to a sensitive young girl. These should never be used in school government. They wound the heart of sensibility deeply and permanently. They exasperate the sufferers and their associates, exciting in them a spirit of hostility, which it is hard to allay. And, although, in general, the pupils range themselves on the side of the injured party, there are usually not wanting some among them, who, from envy or other malign feeling, are prone to add their ridicule of the supposed delinquent, to the infliction already imposed; thus indulging a spirit of malice as mean as it is unchristian.—They are ungenerous. The sufferer is entirely in the power of the master, compelled to endure, without even the privilege of making a reply; and, consequently, demanding his consideration and forbearance.

Far better is it to treat every one with an excess of tenderness, than that a single delicate spirit should be crushed by a sarcastic expression.

I would not overrate the degree of tender feeling in school children; it is seldom fairly estimated by those who have not been long familiar with them. It exists naturally in a very imperfect state. With both sexes it is the fruit of cultivation. Girls, being more precocious than boys, exhibit its indications earlier in life, and with more intensity. A large majority of our own sex, during the school age, evince it but rarely, and then in a slight degree.

In the perplexing trials of the school-room, you will sometimes be disposed to plead with your school, that they give you their more constant coöperation in the efforts you are making for order and progress. Your own sensibilities excited, you become pathetic in your appeals. Most of your audience are attentive while you are speaking; some are evidently interested, and you imagine that you have effected a general conversion. You dismiss them,—and the loud laugh and merry shout at your pathos, soon convince you that your effort has been thrown away; at least, on the great mass of your auditors.

It will doubtless shock you, at first, to notice with what unconcern they look upon the most flagrant acts of impropriety in their fellows, as they come up for correction; or their indifference at still more serious ills. The school-house burns down; domestic affliction or personal illness confines the teacher at home. Does the boy weep or manifest any concern? No; he rejoices in a holiday or a vacation that the event confers upon him! The germ of sensibility exists within him; but it is to be developed and cherished, or it will lie dormant, as—left to themselves—do the other faculties and properties of the mind, and every sacrifice will be made on the altar of *selfishness!*

Let not this view of the material on which you will have to act cause you to despond. Study carefully, that you may understand, *boy-nature*. Look upon it calmly, and take courage; remembering that, although, when acting in masses, these embryo men are little affected as you desire them to be, yet that there is not one among them who may not be moved to good issues, if taken apart with you *alone*, and the effort made upon him individually. All the weapons of the boy-nature are at once laid aside, and he yields in dutiful submission.

Boys think it brave to oppose their seniors in public, even when they know them to be in the right; and sometimes the fear of ridicule impels them, in the presence of others, to resist the best impulses of the mind. "*Dare to do right*" is a good motto for every human being, and should be kept constantly before the young.

To "understand boys" was, in the opinion of Dr. Arnold, master of the famous Rugby School, in England, a primary qualification in a teacher, and one on which he placed great stress. It was this—in which he himself excelled—that aided him immensely in the government of his school. He was generous in his treatment of his students, bestowed on them his confidence, and, in doubtful cases, gave them the benefit of the doubt, and thus excited in them a sentiment of magnanimity, which made them his friends and coädjutors. In adopting his example, you may sometimes award a degree of merit not justly due to your pupils; but the balance of good will still be in your favor. If overrated by you, their pride or self-esteem will incite them to an

effort to become all that you suppose them to be; while a suspicion expressed of low desert will produce the very opposite effect.

The so-called "minor morals" should be ranked by teachers at a higher grade. Among these stands *punctuality*. In this it is important that your practice be positive. Proximate punctuality is no virtue. To be at your post a few minutes after the appointed time, will not meet the claims of duty. John Kingsbury, of Providence, R. I., the present president of the American Institute of Instruction, stated in public, a few years since, that, during the twenty-five years that he had been a teacher, he had never been tardy but once, and then but a single minute. And Mr. Libbey, a veteran teacher at Portland, Me., stated, in reply, that "he could beat that." It is hardly necessary to inquire as to the success of such teachers. Fidelity and exactness like this are a satisfactory guaranty for the quality of the schools. Hundreds of the honored matrons of the city of Roger Williams are the living testimonials to the merit of the school where they and their daughters were educated; and the universal confidence reposed in the venerated teacher of Portland is evidence enough for his.

Punctuality is a good indicator of habits and character. You may reasonably expect that a man habitually practising it is systematic, orderly, and exact in his business transactions, prompt and upright in his dealings, and just in his various relations with society. It is a fact worthy of note that most of the benefactors of the world, whose history has come down to us, have been remarkable for their observance of this duty.

In your engagement with the school-committee, by whom you are employed, certain hours are appropriated to school instruction. Let no affair, personal to yourself, interfere with the claims of your pupils. Every moment will be needed by them in the various studies they attempt. He who takes school hours for reading his newspaper, carrying on his private correspondence, receiving calls of ceremony, or making arrangements for the evening party, is unjust to his charge, and will inevitably fail of success in his calling, lose the approbation of his employers and of his own mind, if not ensure the execration of the young beings whom he specially defrauds.

Strive to open your school, and close it, at the appointed hours. This will promote punctuality among your scholars, and encourage them to be constant in their attendance. But if any one desires or needs more instruction than the six hours of school-time afford,—although it be "not so nominated in the bond,"—fail not to yield a portion of your own time to the wishes of these ambitious or needy ones. A thousand considerations will arise in your own mind to reward the act, and the good you will thus confer will yield you a richer

than a golden harvest. The man who stands, watch in hand, waiting for the hour of twelve to arrive, and then precipitates his school into the highway, whether a reasonable amount of instruction have been given or not, mainly bent on escaping from the walls of his school-room, can have but a low conception of the duties of his office, and must be wholly destitute of the spirit of the true teacher. Yet such, and not a few, do cumber the school-houses in some of our towns and villages. O, that we might have a general expurgation of them throughout the land, for the benefit of the rising generation, and the honor of the teaching fraternity!

Much depends on first steps. On assuming the position of a school-master, therefore, you should have well determined in your own mind what you propose to aim at and to accomplish—should have your course well defined, both as respects the thing to be done, and the mode of doing it. And, without attempting anything in the way of class instruction, on the morning of presentation to the school, the time would be profitably spent in an address to them, couched in familiar language, but delivered with an easy dignity of manner, in which you would state what you propose to do for them in the continuation of any good course on which they had entered, introducing to them such other subjects as would be interesting and useful, whether concerning the mind, the manners, the morals, or the affections. In unfolding the value of these various departments of their future labor, you would find it advantageous and interesting to them to intersperse your statements with such illustrations as might be in point, which, if graphically given, they would be sure to remember in connection with the subject; and, at the close, ask them how they like your plan, thus drawing them out, securing their confidence, and preparing them for active coöperation. You would naturally tell them that the term would soon pass away, and that you wished them to make all the improvement of which they were capable, in the time; that this would be expected by their parents, by the committee, and by you. You would assure them of your friendship, your encouragement, and your assistance; telling them, at the same time, that yours would be a *working* school, and that their happiness in it, as well as the amount of their attainments, would depend on their diligence, their fidelity, and the temper of mind in which they should come to school from day to day;—that you would endeavor to be gentle, patient, and kind; but that it would be very difficult for you to be always so, unless each one should strive to do his duty—to do right;—that you should require a strict attention to order, and to all the rules of the school; confident that, without this, there could be no progress, and no comfort in the new relations which had then been formed.

You would, also, insist on regular and constant attendance at the time appointed, showing them not only how much they themselves would lose by absence and tardiness, but how unjust and unkind to their classmates and their teacher it would be, to inflict the loss and labor upon them, which would be the inevitable consequence of their delinquency in these respects.

An address, in some such style as this, would probably secure their attention, excite their zeal, and induce new resolutions to secure your approbation.—Let a recess follow. Give the scholars an opportunity to exchange thoughts on what has been said to them; and, if a favorable impression have been made, this intercourse will confirm and deepen it.

The classification and seating will occupy the remainder of the session, perhaps the whole of the day. No matter — "make haste slowly" is a good maxim. The success of the term will depend mainly on securing a right start. With your best uninterrupted efforts you will be unable, in a school of strangers, to make an unexceptionable organization at first; but, by devoting a reasonable portion of time to the effort, you will have the less to undo.

Tell the scholars that, as soon as you shall have become acquainted with them, you intend to establish a "merit roll," and that you cherish the hope that all, or with few exceptions, will have a claim to the front rank. Tell them that you want them all to become good scholars, but that your highest approbation will be bestowed on those who are the best boys and girls.

By thus showing them that they all have it in their power to distinguish themselves, whatever their scholarship, you may be able to enlist a large number of allies in your work, which will hence go on all the more prosperously, because adopted cheerfully, or from choice.

You are now ready for the assignment of lessons. If it can be done without confusion, allow the voice of each class to fix their length at first, cautioning them against attempting too much, and notifying them that the amount assigned will be required, when due, thoroughly and perfectly learned. You will thus ascertain how much they can master, and save yourself from the murmurs of discontent so almost sure to arise from the new teacher's first tasks. It is difficult for one familiar with the minds of his pupils, in all cases to adopt judiciously the amount to be acquired at a sitting, by each class; and, where the parties are strangers to each other, impossible. A good rule is, to require too little, rather than too much. When the teacher ascertains by experience what the classes respectively are able to do, he can, of course, modify his requisitions accordingly. The mind should not, on the one hand, be overtasked; nor, on the other, have

so little demanded as to permit it to lie torpid, or prevent a vigorous action. In this, as in most things else, wisdom points to the middle course. Give enough to do to keep the powers bright, but not enough to crush or to burden.

When the lessons have been assigned, question the pupils, to ascertain whether they know how to study; for on this the facility and certainty of acquisition, in a great measure, depend.

If they have had no instruction on the point, show them how. If the lesson is one merely *memoriter*, it should be studied piece-meal—say, to the first period, and then review; to the second, and then a repetition of the first and second; to the third, and a repetition of the first, second, and third,—and so on to the end; by which process the learner holds, as it were by a cog-wheel, all that he gains, instead of attempting too much at once, whereby the new portions learned drive the former out of the memory.

If the question of opening your school in the morning, with religious exercises, be left for you to determine, you will, of course, decide in favor of it. The good effect of it, if judiciously conducted, will be felt through the day, and its influence carried beyond the walls of your school-room. But let me entreat you not to permit the services to be performed in a dull, monotonous tone of voice, as if the whole were a mere lifeless formality. If the heart be in it, the manner will evince the fact, and the children will feel that it involves a solemn reality. If not, it should be omitted altogether;

> "For God abhors the sacrifice
> Where not the heart is found;"

and your school, instead of receiving benefit, will sustain lasting injury in its religious nature, as well as in its estimate of public religious services.

Be careful, in reading the service,—whether it be in a book prepared for such occasions, or a prayer-book, hymn-book, or the Bible,—to do it with feeling, with appropriate modulation, and all the expression that properly belongs to the sentiments uttered. Why some of the sublimest compositions that have come down to us should be murdered, as they not unfrequently are, by those who attempt to read them in public, it would be impossible to say; but let it not be done in schools, where the art of reading is professedly taught; in fact, where it is the leading department of attention. There, at least, they should be read with propriety and effect.

If you are endowed with *enthusiasm*, you are now prepared to commence your work. This is a property as essential to complete success in teaching, as any belonging to mind. The individual destitute of it,

would do well to devote his powers to some other field of labor. If, however, a degree of it subsists, and a strong faith in its importance, it may be increased by culture. The difference between a school conducted by a person largely imbued with it, and one who possesses little or none, is as the living compared to the dead.

On the return of Horace Mann from his educational tour in Europe, he published, in his Seventh Annual Report to the Board of Education of Massachusetts, the result of his observations; and nothing was more striking than the disparity he pointed out between the Prussian schools and those of our own country, in respect to this element of power over the young. And although, it must be confessed, there seemed to be an excess of it, as it was said to be applied to the teaching and management of the Prussian schools, yet I have ever thought that an infusion of the same spirit into our American modes of educating our children, might well be considered as an improvement of very great value.

Enthusiasm in the teacher gives vitality to whatever he says or does in presence of the school; while a heavy, slow, phlegmatic temperament puts to sleep even the animation of childhood, and crushes its buoyancy as with a leaden weight.

I am well aware that a state of unceasing excitement is healthful neither to the body nor the mind; that both would soon sink under it; that teacher and taught would become its victims. I do not, therefore, plead for this. I ask only for the presence of this great principle in the man, to be used as a just discretion may dictate.

Ebenezer Bailey,* a man who stood in the very front rank of good teachers, in the city of Boston, a quarter of a century ago, wrought wonders with a large school of young ladies, taught by him for several years, through the instrumentality of this power. Scarcely did the Prussian mode of recitation and of drill, as related by Mr. Mann, exceed what might with truth be said of Mr. Bailey's school. The latter had not the violence, the almost fierceness of manner, witnessed in the Prussian schools; but for earnestness, for intensity of thought, and breathlessness of action,—nothing feminine in the human form could go beyond them.

* Mr. Bailey had been very successful in the public service, before the establishment of his private school; first, as principal of the reading department of the South school, and subsequently as that of the high school for girls. This latter excellent and very popular school, having been abolished in the mayoralty of the elder Quincy, on principles of a very anti-republican character, Mr. Bailey wrote an able pamphlet, addressed to the mayor, denouncing the measure in scorching terms. And when he, soon after, proposed opening a school of a

He would arrange a class of ten or twelve around a black-board, and, writing a problem on it, would put them upon their speed in its solution. Each, with slate in hand, would begin, the moment she had caught the idea, to solve it, the object being to obtain the answer in the shortest time. She that succeeded first called out *one*, the next, *two*, and so on to the last. This fixed their relative rank. The classes were usually well matched; and, as the excitement was continued but for a short period at a lesson, it was one of the most interesting exhibitions of an intellectual race that can well be imagined. The rapidity with which the calculations were made, and the figures marked upon the slates by the several competitors, memory even almost refuses to declare. Suffice it to say, that one might travel far, and examine many schools, without finding a parallel in these respects. And this example is given as illustrative of the operation of this quality in the hands of a skilful teacher.

It is not my intention to assert that there are now no schools equal to Mr. Bailey's. This would be untrue; but I wish to keep before the mind of the young teacher the important fact, that the pledge of success in school-keeping is a well-directed enthusiasm, which this school so well illustrated.

It would be impossible thus to influence a whole school, especially of both sexes, of the diversity of ages that attend most of our public seminaries. Nor is it desirable to do it with the same scholars habitually; but he who is able thus to bring out all of mental capacity that a class possesses, has his pupils in his hand, as it were, and may mould them as the potter moulds the clay.

Some school exercises are better adapted than others to secure such entire absorption of the attention; but the enthusiastic teacher will never want for expedients to elicit the ardor of the young, and turn it to the best account.

I shall make no apology for having entered into these details; for I am confident they are what the young members of our fraternity want. To the teacher of experience they are not addressed: he is supposed to be among those who have "already attained."

similar character, on his own account, large numbers availed themselves of the advantage of joining it; and his annual catalogue, for 1829, gives the names of one hundred and sixty-eight pupils connected with it.

He was a thoroughly educated man, of fine taste and just discrimination. His work on Algebra, his Young Ladies' Class Book, and several poems of merit, evince the strength and versatility of his genius. He was one of the leading founders of the American Institute of Instruction, to which he devoted much time, thought, and labor.

XI.—NORWICH FREE ACADEMY.

WITH AN ACCOUNT OF RECENT SCHOOL MOVEMENTS IN NORWICH, CONN.

THE endowment of a FREE ACADEMY in the town of Norwich, Connecticut, by a few large hearted men, as part of the system of public instruction, is a remarkable example of liberality to the cause of education and science, which we take pleasure in recording. The building erected for the accommodation of the school, the range of studies contemplated, the permanence and liberality of the endowment, and the history of the educational movement which ended in the present organization of the schools of Norwich, are matters of such general interest, that we have asked the privilege of publishing the Address of the Rev. J. P. Gulliver, with the other proceedings, at the recent inauguration of the institution. As an appropriate introduction, and summary of the whole movement we copy the following article from the Appendix to the Annual Report of the Superintendent of Common Schools in Connecticut for 1856.

Movements were commenced about twenty years since, for a re-organization of the public schools of the Second School Society of Norwich. The usual opposition originated by a few narrow-minded tax-payers, and fanned into life by ambitious demagogues, was arrayed against the measure, and it was finally defeated. The whole community had, however, been agitated with the subject, and much good seed had been sown, which has since borne beautiful fruit. For ten years the citizens of Norwich made the best they could of a set of disjointed schools, thrown together with scarcely any attempt at gradation, governed by six independent districts, and some forty school officers, and supported entirely without taxation. Good men labored hard; but almost in vain, to secure for the people, under the existing system, good schools.

An effort was then made, with still greater earnestness, to improve the schools, without any attempt at re-organization. They were regularly visited. A monthly meeting of the visitors was held, at which the condition of each school was minutely reported. Every possible effort was made to elevate the schools. The success was, however, but partial. After a trial of two years, the gentlemen, whose valuable time had been given to the effort, came unanimously to the conclusion, that without a consolidation of at least the more central school districts, and the thorough grading of the schools, and the taxation of property for the support of schools, this labor would be thrown away. The board, accordingly laid before the school society a proposition for inaugurating such a change. This was the signal for a storm! A few (but only a few) of the heavy tax-payers were the first to smell treason. They passed the word to a set of men, who flourish in their own esteem, by exhibiting their powers in thwarting what others attempt to do. The usual cry was raised, 'a school for the rich!' The prejudices of poor men were appealed to. This very class, who were to be most benefitted by the change, were excited to oppose it. Men who had been paying rate bills for years, clamored against the proposition to sup-

port schools by taxing property. Parents, who had bitterly complained that their children could not be as well educated as those of the wealthy, refused to accept a plan which was to bring the highest order of schools within their reach, at a mere nominal expense. The intelligent portion of the community were, however, thoroughly aroused. Meeting after meeting was held. Crowds attended and listened to the discussions. Light was rapidly diffused. The opposition became desperate. All manner of offensive personalities were made use of to intimidate those who were inclined to be champions of the good cause. Still, it was apparent, by incidental votes, that a large and an increasing majority were in favor of the proposed change. This majority, however, forbore to press the question to a decisive vote. They publicly avowed their intention to postpone final action, until the whole community should have fully examined the question, and arrived at an intelligent decision upon it. This concession was taken advantage of. At an adjourned meeting, where it was generally understood no decisive action was to take place, the opposition collected a large force, very many of whom were not legal voters, and, in the absence of the great body of the friends of the measure, voted the indefinite postponement of the whole subject. No sooner had this been accomplished, than a general regret was expressed at the result, even among those who had boisterously aided in the movement. Many declared, that had they expected to succeed, they would not have opposed the measure. Their leaders, instead of receiving the coveted meed of applause from their followers, for the victory, were overwhelmed with reproaches. In these circumstances, the friends of reform judged it wise to cease all further agitation of the subject, and to leave the responsibility of the consequences upon those who had chosen to assume it. The administration of the schools was accordingly left in their hands. They appointed such officers as they chose, and no attempt was made in any form, for two years, to interfere with their wishes. During this time, the schools sunk to a lower level than ever. Even the most ignorant and prejudiced could not fail to see and feel the evil. The attendance constantly diminished, until it was ascertained that only about one-third of the children, between the ages of four and sixteen, attended school at all. The feeling of the community on the subject was becoming intense. The attention of the people having been so thoroughly aroused by previous discussion, every defect was seen as in a focal light. Those who had been distinguished as the leaders in the effort to defeat the proposed reforms, found themselves in a most uncomfortable position. They were daily reproached as the authors of all the mischief. The first fruit of this ripened public sentiment, was a movement for the endowment of a free high school. Every attempt to improve the lower schools, had been met by the cry, "You want a high school! You want a school for the rich, and mean to tax the poor to pay for it!" Some thirty-five individuals accordingly determined that they would unite and establish a high school and endow it, which should be open, free of all charge, to all classes. This effort was successful, some eighty-five thousand dollars having been subscribed for that purpose. It was generally understood that as soon as this subscription was complete, a new appeal was to be made to the school society to acknowledge this magnificent donation, by re-organizing their lower schools on the plan previously rejected. Before this plan could be carried out, it was ascertained that the leaders in the former opposition were moving in the same direction, and were about to propose the same thing! Most gladly the friends of reform left the business in their hands. The result was, that a consolidation of the two central districts of the city was effected, a vote was passed, *unanimously*, to purchase one of the most valuable lots in the city, and to erect the noble structure, a representation of which is here given. * Soon after, the provisions of the new school law were accepted, a Board of Education was appointed, the ablest teachers were engaged at liberal salaries, a perfect gradation of schools established, and every provision made for the institution of the very best system of public education. When the Free Academy shall go into operation, Norwich will undoubtedly be furnished with public schools, equal, if not superior, to those of any city in the land, not excepting Boston and its neighboring municipalities. This history shows what can be accomplished, in the face of the most powerful opposition, by determination, pa-

*See Plans of Central District School-house: p. 696.

tience and perseverance. It especially shows that defeat is often essential to victory. The feeling excited, and the interest awakened by these repeated defeats, have secured these glorious ends. It should be added, that the citizens of Norwich are justly proud of their schools, and that the expenditure they occasion is most cheerfully borne, without the slightest show of opposition.

As an important part of the history of this movement, we publish a Circular, addressed to a few of the wealthiest citizens of Norwich, which seconded by the unwearied personal efforts of the author, the Rev. J. P. Gulliver, originated and gave direction to the efforts which ended in the establishment and endowment of the Free Academy. After setting forth the condition of the schools and of education in Norwich, the author remarks:

Such are some of the leading *facts* in the case. The inquiry now arises—*In what way may these evils be most readily removed?*

Will you allow me to suggest, very briefly, some considerations which go to show that the establishment of a HIGH SCHOOL, on an independent basis and on a liberal scale, will more directly and surely effect the object in view than any other measure we can adopt.

Such a school is of course necessary to secure instruction in the higher branches of study, for which we have almost no provision now.

It is necessary to introduce system and gradation into the lower schools. There must be a standard to grade by—a unit to measure with. The qualifications required for entering the High School will furnish such a standard. Those who control the High School can raise the standard as rapidly as the improvement in the lower schools will allow. Thus gradually and almost insensibly all the schools in the city will be elevated. * *

This inciting influence will be felt also by parents, committees, and districts. No district will be willing to be deprived of the privileges of the High School on account of the inferiority of its own schools. The reputation of grammar school teachers will depend on the number of scholars they get into the High School. This will raise the standard in the grammar school. The reputation of the Primary school teachers will depend on their success in qualifying their scholars for the improved grammar school. The committees in charge of each school will sympathize with the teachers and pupils. The parents will soon become interested. No district will wish to be left behind in the honorable competition. A new life will thus be infused into all our schools. A new standard will gradually be adopted in all our districts. Interest and activity will take the place of apathy and indifference.

This seems to my own mind the readiest and surest way of reforming our whole school system. By means of a High School we can lead where we could never force. We can gently allure those upon whom our arguments and remonstrances will have no effect.

A board of enlightened men in charge of a High School could in fact, without seeming to do so, control the schools of the whole city. Gradually, but surely we should see them elevated in their character, enlarged in their accommodations, deepening in interest, and extending on every side their benign and elevating influences.

The next inquiry that claims our consideration is—*How shall a Free High School be established and sustained?*

There are but two ways:—

1. It may be established and controlled by the School Society.*

2. It may be endowed by private munificence and managed by a board of Trustees selected by the founders.

The first is the ordinary method, and is in a good measure successful under the Massachusetts and Rhode Island laws, which authorize town and city governments to establish and control the schools, without recourse to a popular vote.† But under the Connecticut law there are many difficulties.

1. There is always great difficulty in getting a vote for the *establishment* of such institutions. There are in every community many, whose passions and prejudices can be easily aroused on such a subject. They are suspicious of those whom they term the aristocracy. They fear that some cunning plan is on foot to trample upon the people. They think that in some way they are to be deprived of their hard earnings for the benefit of the rich. No one can have forgotten the scenes through which we have passed in this city in discussing this subject. It would be difficult to tempt our citizens to engage in such a contest again. And even if they should, success would be very doubtful. What a noble vindication would the course now proposed furnish, of the disinterestedness and magnanimity of their motives in previous efforts!

2. To give to the mass of our voters any proper conception of the high character of such a school as we need, and to secure suitable *appropriations* for it, may safely be set down as an impossibility. We need a school that shall give to young ladies the best possible education in *every department*,—an education that shall fit them for any station in life. We need a school that shall train our young men in classical, mathematical, and scientific study, so that they be fitted for college or any department of business life. We ought to remove the necessity of sending our children out of town in order to obtain an education. But who will undertake to make the men, that assemble in our Town Hall, comprehend or appreciate a plan like this?

3. The *management* of the school must be, on this plan, in the hands of the School Society.

What an opportunity would this furnish for the designing to ply their arts!

What an opportunity for every passionate man whose feelings may have been disturbed by the administration of wholesome law, to work fatal injury to such a school! How many friends of rejected applicants for admission would yearly be added to the discontented mass!

Beside how little do large numbers of the voters in this city, or any other, know about the proper management of a High School. They have never attended one; they have never seen one in practical operation. Most of these men know more about a Bank, or an Insurance Company, or a Manufacturing Company, than about a High School. But how much would the stock of such a company be worth if its concerns were left under the control of such an assembly as is collected in one of our School meetings?

The great danger would be that an institution, of the high order which we contemplate, would be so stinted in its commencement, or so mismanaged afterward as to prove a failure.

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* The School Societies were abolished by the Legislature in 1856, and the old Town Organization substituted in their place.

† This is not universally the case.

The other method of establishing the school is by private endowment. The plan would be to raise a sufficient sum to purchase land, to erect the building, and to establish a fund sufficient to keep the building in repair, purchase fuel, &c.; and also to raise a fund, the income of which shall be sufficient to secure the services of as able and accomplished a corps of teachers as the country affords.

The advantages of this plan would be as follows:

1. It would secure for the city through all time, a school of the highest character. No private school or "boarding school," however expensive, could possibly give to our sons or daughters, advantages equal to those offered by an institution thus established and controlled. This proceeds on the supposition that it shall be liberally endowed. Tens of thousands have often been almost thrown away in the half-endowment of institutions which have never, on that account, secured any important results.

2. It would secure also a complete system of Grammar, Intermediate and Primary schools of a high order. This I trust has already been shown, and it appears to be one of the grandest results of the enterprise.

3. It would place not only the High School, but all our schools under the actual control of a board of enlightened men, who in their responsible position would make the science of education a study, and thus direct the whole system on the best principles.

4. It would secure for our children, at their home, an education of the highest order. If only a small portion of the money which has been spent by our citizens for twenty years past, or which must be spent for twenty years to come, for inferior advantages in distant schools, were devoted to the endowment of this school, an ample sum would at once be secured. The plan we are now pursuing is the most uneconomical, as well as the most unsatisfactory, possible.

5. It will secure our children, more effectually than any other plan, from contact with children of vulgar manners and vicious habits. This will seem to many, a singular assertion in respect to a public free school. Yet this is the teaching of experience. Daniel Webster was in the habit of declaring very emphatically his preference of well regulated public schools in this respect to any private schools. The Principal of the High School in Worcester, after calling my attention to the remarkably gentlemanly and lady-like manners of the scholars, during the time of recess, remarked: "we find that the thorough education required of those who enter this school is the best guarantee of refinement of manners and delicacy of feeling." I listened to a recitation in Virgil from two boys, one a son of one of the most distinguished men in Massachusetts, and the other the son of an Irish laborer in his employment. It was impossible to discover any difference in dress or demeanor, only that the Irish boy seemed rather the better scholar of the two. Vice and vulgarity are confined to no class in society. But education is always refining and purifying in its tendency. In a private school the vicious and the vulgar often can not be dealt with as they deserve. But an institution like this would be so independent and so strong, that it could expel at once any injurious character, before he could infect his fellows.

6. This plan if carried out, will doubtless contribute greatly to the growth and prosperity of our city.

I have letters from prominent gentlemen both in Hartford and Providence, stating it to be the general opinion of intelligent men, that the recent impulse given to business in those places and the great rise in real estate "is to be

dated from," says one, is "mainly to be ascribed to," says another, "the establishment of an improved system of schools." And this is the uniform testimony which comes from these cities. It is well known that a large number have left our city, and many have been deterred from coming here, on account of our defective system of schools. What enterprise could be more beneficent and at the same time more remunerative than the one now proposed? "There is that scattereth and yet increaseth, there is that withholdeth more than is meet, but it *tendeth to poverty.*"

7. We have the testimony of experience in favor of this plan of private endowment.

The Putnam Free School of Newburyport, Mass., was endowed by Oliver Putnam, Esq., of Newbury. The building and land cost $26,000. The fund for the support of teachers is $50,000. The object of the founder was to raise the standard, especially of Common School Education. I am informed that the effect has been truly wonderful.

The plan then, which is now proposed, is the establishment, by private endowment, of a Classical and English Free Academy of the highest order. [Here follows the plan since realized.]

The plan now presented is designed to secure all the educational facilities which are needed to meet the wants of this entire community *for all time.* It is designed to reach and benefit every class in society. It is designed to elevate and perfect schools of every grade. It is designed to accomplish by associated effort, what individuals can secure for themselves and their children, only by great pains-taking and expenditure. It proceeds on the principle that the true wealth of a nation is the cultivated talent of its citizens. It will seek out genius, whenever it is to be found, and will educate it for the common weal. If there be any here, in any of the walks of life, who are fitted to become the future Fultons, and Whitneys, and Websters, and Washingtons of our land—it will awaken and develop their dormant power. Franklin owed all he was, and his country owed all he did for her, to the public schools of Boston. There may be Franklins here, and even those greater than he. Is not a plan thus comprehensive, more truly economical, than one half as costly, but fitted to secure only a tithe of its benefits? In asking you to lend an aid to this enterprise, commensurate with the interests involved, the inducement can be decidedly held out that you will do a permanent work, a thorough work, a patriotic work, an economical work, a work which will be pecuniarily remunerative in its influence upon the prosperity of the city, a work for your children and for your children's children, a work for all the generations that are to succeed each other upon this soil, a work for which each of these generations shall successively bless you, a work upon which God shall smile, and which will be a source of the purest satisfaction to your own mind through all your remaining years on earth.

Asking your pardon for the great length of this communication, which I have found myself quite unable to compress within narrower limits, and begging that these suggestions may receive your early and careful consideration, I remain,

Yours, very respectfully, JOHN P. GULLIVER.

It is not often the privilege of the projector of such an enterprise to be called on to inaugurate the institution as Mr. Gulliver was—and to perform the pleasing duty as Mr. Gulliver did, on the 21st of October, 1856.

EXERCISES AT THE DEDICATION OF THE FREE ACADEMY,

On Tuesday, October 21st, 1856.

PRAYER by Rev. Alvah Bond, D. D.

SELECTIONS from the Scriptures by Rev. William F. Morgan.

STANZAS written by Mrs. L. H. Sigourney for the occasion.

There's many kinds of stock, they say,
That tempt the speculators;
But what is safest held, and best,
Might tax the shrewdest natures.
Sage Franklin said, in earlier days,—
And now the wisest bless him,—
"Who pours his purse into his brains,
No man can dispossess him."

And so, the people of my love
His theory have tested,
And for their children and themselves
A glorious sum invested,—
And by this dome, for knowledge rear'd,
Which no dark mortgage fetters,
Have nobly made a race unborn
Their everlasting debtors.

And as in old, historic times,
Though exiled or unnoted,
The Roman citizen with pride
His honor'd birth-place quoted:
So I, with quickened heart this day,
Warm orisons addressing,
Ask, for these native rocks and dales,
Our Father's richest blessing.

ACT OF INCORPORATION.

Upon the petition of Russell Hubbard and others of Norwich, county of New London, praying for an act of incorporation for a free Academy, in said town of Norwich, as per petition on file, dated May 5th, 1854:

Resolved by this Assembly, That Russell Hubbard, William P. Greene, William A. Buckingham, William Williams, Henry B. Norton, John Breed, Caleb B. Rogers, William W. Coit, James L. Greene, Daniel Tyler, Samuel C. Morgan, Israel M. Buckingham, Lafayette S. Foster, David Smith, John F. Slater, Charles Osgood, Erastus Williams, Lorenzo Blackstone, John A. Rockwell, Leonard Ballou, Charles J. Stedman, John P. Gulliver, Charles N. Farnham, Edward O. Abbott, Charles Tracy, Albert H. Almy, Lucius W. Carroll, Jedediah Spaulding, Stephen W. Meech, Jeremiah S. Webb, Henry Thomas, Christopher C. Brand, Charles Johnson, Ebenezer Larned, Jr.,

Elisha Edwards, Andrew J. Currier, and their successors, be, and they hereby are constituted a body corporate and politic, by the name of "The Norwich Free Academy," and by that name shall have perpetual succession, and be capable in law to purchase, receive, hold and convey all kinds of property requisite and convenient for the purposes of a school; to sue and be sued; defend and be defended, in all courts and places whatsoever; may have a common seal, and change and alter the same at their discretion; appoint proper officers and agents; elect residents of said town of Norwich, to fill the vacancies occurring in their number by death, resignation, or removal from said town, so that hereafter the number of said corporators shall be maintained at twenty-five, when from any of these causes it shall be reduced below that number; and make such regulations, rules and by-laws, as they shall deem expedient, to carry out the objects of the corporation, not inconsistent with the laws of this State or of the United States.

Provided always, that this resolve may be altered, amended, or repealed by the General Assembly.

Resolution inviting the Rev. John P. Gulliver to prepare and deliver an Address on the opening of the Free Academy, in which the history of schools and education in the Town of Norwich should be given, and the designs of the founders of this Institution should be set forth for the information of the public, and the guidance of those who shall be entrusted with its future management.

Address by Rev. John P. Gulliver.

Hymn.

Let children hear the mighty deeds,
Which God perform'd of old,
Which in our younger years we saw,
And which our fathers told.

He bids us make his glories known;
His works of power and grace;
And we'll convey his wonders down
Thro' every rising race.

Our lips shall tell them to our sons,
And they again to theirs,
That generations yet unborn
May teach them to their heirs.

Thus shall they learn in God alone
Their hope securely stands,
That they may ne'er forget his works,
But practice his commands.

Remarks by President Woolsey, of Yale College; Dr. Wayland, late President of Brown University; President Goodwin, of Trinity College; President Smith, of Wesleyan University; Professor Hooker and Professor Noah Porter, of Yale College, and Hon. Henry Barnard, of Hartford.

Doxology.

[The Remarks will be published in the Journal for March, 1857.]

ADDRESS BY REV. JOHN P. GULLIVER, AT THE DEDICATION OF THE NORWICH FREE ACADEMY.

We have assembled to dedicate a costly and noble structure to the cause of education. It is an occasion which might very pardonably be employed in congratulation and rejoicing. Whether we look upon this beautiful territory, consecrated to the uses of learning, or upon this ample building, of whose halls fair science is henceforth to be sole mistress, or upon this great endowment—a legacy from the present to all succeeding generations,—or upon those other generous gifts, which are to station in our cabinets an elegant philosophical apparatus, and to cover these walls with the works of the learned and the great of all ages, we see, on every hand, the gathering materials for a magnificent enterprise, whose successful beginnings and prospective results, no enlarged mind can contemplate without a thrill of exultation and delight. Such comprehensive plans, with so generous an execution of them, make us think better of human nature. They inspire hope for the future of our country and the world. They deepen the conviction that there is a God on high who is steadily advancing the race to dignity, purity and peace.

Yet we feel no disposition to hold a jubilee over what has been accomplished. We celebrate to-day not an achievement but a beginning. The collecting of these material resources is but a small part of the work we have to do. We have now to commence our *spiritual* building. We have to provide an endowment of learning, and of skill and of genius. We have to mark out a territory of science around which we shall lay our curriculum of study. We have to devise an apparatus which shall move responsive to the laws of thought. We have not merely to place libraries upon our shelves, but to store minds with ideas, logically placed and delicately wrought, to be an ornament and a treasure forever.

We do not conceal from ourselves that here is a great labor. To conceive correctly, and to image forth to the thoughts, the ideal of such an enterprise, is a work demanding a gifted intellect,

a large learning and ample experience in the science of teaching. To realize the ideal will be the labor of many long years. It will require patience, talent, scholarship, great steadiness of management, and great determination of purpose. It can only be reached by gradual approximations. It will demand the united action of patrons, and trustees, and teachers, and scholars, and parents.

Our eye then to day is upon the future rather than upon the past. The emotion of anxiety overcomes that of exultation. And we have gathered these wise and learned men about us, we have summoned this intelligent assemblage of our fellow-citizens, to consult upon this great problem and to obtain their aid in fixing the boundaries of our institution, in determining its place among the sisterhood of schools, and in laying down the general principles which should govern its administration.

As you have learned from the resolutions read in your hearing, I speak to-day in the name of the founders of the Institution. So far as any fixed views are now advanced in regard to the aim and plan of the school, they should be regarded as an exposition of the wishes of those who have established it, having been approved by their formal vote.* They desire in this manner to place in the archives of the Academy a full exposition of their plans, for the information and guidance of those who shall succeed to its management.

Following the order laid down in the resolution which is to be my guide, I will attempt to unfold the designs of the founders of the NORWICH FREE ACADEMY, by a historical review of the circumstances in which it had its origin, and afterward by a more direct discussion of the nature and aim of the enterprise.

The first settlers of Norwich, like all the early colonists of New England, regarded schools for their children, one of the prime necessities of the social state. As soon as a few scattered cabins had been erected on the banks of the Yantic and even before the war-whoop of the contending Mohegans and Narragansetts had ceased to echo along its banks, we find the schoolmaster abroad in the infant settlement. Mr. John Birchard has the honor of heading the worthy train of Norwich teachers, receiving in return for nine months' service in the year, £26, provision pay. This substantial remuneration, which doubtless brought more potatoes to his cellar and corn to his crib, than ten times that amount would do at present, was supplied by a contribution of 9*s.* from

* For the historical matter the author alone is responsible.

each scholar, the town making up the deficit. The next mention of school matters upon the town records bears date 1678, when it was voted that "Mr. Dan'l Mason should be improved as a schoolmaster for nine months"—the meaning probably being, not that the town should improve Mr. Mason, but that Mr. Mason should improve the town. Two years afterwards, in 1680, the first formal town meeting was held for the special purpose of establishing a town school, at which the whole matter was left in the hands of the selectmen, with the following strict injunctions. They should see "1. That parents send their children. 2. That they pay their just proportion. 3. That they take care that the parents be not oppressed, espeshally such as are disabled. 4. That any additional expenses is a charge to the town and to be gathered as any other rates. 5. Whatever else is necessary to a prudent carrying through this occation, is committed to the discreshon of y^e^ sd select men." *

In 1787 an endowed free Grammar School went into operation, which was established by a legacy of £500 from Dr. Daniel Lathrop. Dr. L. is distinguished as having been, in partnership with his brother Joshua Lathrop, for a long time the only Druggist in the State of Connecticut, in which business he rapidly amassed a fortune, gaining meanwhile the highest regard of his fellow-citizens for his far-reaching views and large generosity. Could that fund of £500 have been preserved in accordance with the wishes of the donor, and made the nucleus of other donations as liberal for the times as his, what magnificent results might have been rolled up during the seventy years which have succeeded! Owing to restrictions in the will, providing that the school should be kept eleven months in the year and eight hours each day, the town was at last obliged to relinquish the legacy and to forego the benefits of the large and flourishing school, which, for many years, was supported by it. Yet the design and the deed are none the less praiseworthy. The name of one who at that early period so fully comprehended the importance of free schools of a superior order, and who so liberally provided for them, should be mentioned with high honor upon our educational annals. Mr. William Baldwin was a distinguished teacher in this school. Among his pupils were the Rev. Dr. Nevins, of Baltimore, the Hon. Jabez Huntington and the Hon. Henry Strong, of Norwich, Gardner and

* History of Norwich, by Miss Caulkins.

Samuel Howland, of New York, the projectors and principal proprietors of the Panama R. R., together with several of the elder among the patrons of this Institution. The pupils educated in the endowed school of 1787 have been among the leading projectors of the endowed school of 1856! From this center let similar influences go forth, and let the circle widen forever!

In 1690 the records inform us—"The Town orders a Public School: 4*d.* a scholar to be paid by the parent or master and the balance to be raised by the Townsmen by supply rates." In 1700 and in 1701, school-houses were ordered to be built at the expense of the town. Taxes for the support of schools, as well as for the erection of school-houses, are, it will be observed, no new thing in Norwich.

About these days flourished a noted teacher,—Miss Sally Smith,—of whom many striking reminiscences are preserved among the grey-headed boys and girls among us. Miss Sally taught no less than three generations of trembling pupils, confining her instructions chiefly to the mysteries of English spelling. She was greatly distinguished for her success in this department and still more for her uncommon faith in the wisdom of Solomon. The legends still current among us of this lady's severity with the rod are quite astounding. They correspond, unfortunately, with the usual reminisences of the school-teachers of those days. After all her usefulness, she died at last unhonored, but not forgotten, within the walls of the poor-house,—a warning to all who attempt to control the warm impulses of childhood by *no other power* than the iron rule of mere brute force. The times, however, should have borne the reproach rather than the teacher. From the year 1795 and onward, the Rev. Wm. Woodbridge, the father of the Geographer, kept a boys and girls school in the house now occupied by Gen. Williams. To quote again from the history of Miss Caulkins, "The exhibitions of this school were deemed splendid, and great was the applause when Miss Mary Huntington came upon the stage, dressed in green silk brocade, a crown glittering with jewels encircling her brows, and reading Plato, to personate Lady Jane Grey, while young Putnam, the son of the old General, advanced with nodding plumes to express his tender anxieties for her in the person of Lord Guilford Dudley."

That the schools of Norwich during the last century repaid well the care and money devoted to them is evident from the fact that they furnished to the country five Presidents of Colleges, among

whom we find the distinguished names of Fitch, the Founder and President of Williams; Backus, President of Hamilton; Kirkland, President of Harvard; and Wheelock, President of Dartmouth. The names of numerous prominent civilians and military men might be added to this list. The name of President Nott, of Union, should perhaps also be mentioned, since he received his early education within the limits of the ancient town, under the direction of his brother, who often boasted that he had taught the distinguished orator all the elocution he ever learned, in the corner of one of the home-lots of the Franklin Glebe.

In 1807 a Boys' School was established in the building now standing upon the Little Plain, by Capt. Charles Rockwell, Dr. Dwight Ripley, Major Joshua Perkins, and others. This was called "The Chelsea Grammar School;" was designed chiefly for classical study. Its first teacher was Dr. Jonathan Knight, of New Haven. Hon. Jonathan Barnes, of Middletown, Mr. Roswell C. Smith, the writer of school-books, Rev. Dr. Bushnell, of Hartford, Rev. Dr. William Adams, of New York, and Mr. Wyllys Warner, of New Haven, were among the teachers in this school. This school was, in later years, revived under the auspices of Mr. Charles W. Rockwell, the son of its early patron, and the building now standing upon the spot was erected by subscription. Many of the present citizens of Norwich received their early education in the "Chelsea Grammar School."

In 1812 Miss Lydia Maria Huntley, (now Mrs. Sigourney,) of whom her native town is justly proud, as a scholar trained in Norwich Schools, and Miss Nancy Maria Hyde, established a Female Seminary in the house now occupied by Mr. Edwin Gavitt, on the opposite side of the Little Plain, which flourished for some years. A school known as "The Proprietors' School," was also an institution of importance. The building stood on the east side of the Town Hall, and has since been converted into a stable.

In the year 1815 a change took place in the organization of the public schools. Upon the settlement of the parishes of Lisbon, Franklin and Bozrah, the whole control of the schools had passed, by law, from the town, to the ecclesiastical societies therein established, and at the above date these societies were again sub-divided into nearly forty school districts. The evil influence of these numerous independent jurisdictions was felt during all this period and is felt more and more as the country becomes more densely populated. Private schools were at the same time numerous, as

they must be when public schools decline. Among these may be mentioned the school for young ladies, kept in the building now occupied by the City Post Office, by the distinguished Dr. Jedidiah Morse, the author of the "American Universal Geography," to whom we are indebted for no small portion of the culture and intelligence which have characterized the mothers of the present generation of scholars among us.

In the year 1827 a proposal was made by Mr. W. P. Greene, Mr. W. C. Gilman, and others, to establish an Academy in Norwich on the joint stock principle, with a capital of $3,000. The shares were readily taken, but there being a difference of opinion as to the location, the enterprise was at last abandoned. Soon after, Mr. Thomas Robinson selected the lot near the Town Hall, where the building stands which was recently occupied as a boys' school, for a Female Seminary. After drawing a plan of the proposed building, he obtained subscriptions to the stock, and secured the erection of the "Norwich Female Academy." Many of the subscribers to the last named project, united in this.

In 1838, the Legislature commenced a new era in the history of common schools in Connecticut, by an act to provide for the better supervision of these schools, by the appointment of a Board of Commissioners of Common Schools, whose duty it was made to collect and disseminate information, to discover, devise, and recommend plans of improvement in the organization, administration and instruction of the schools, and through the labors of the Secretary, to awaken, enlighten, and elevate public sentiment in relation to the whole subject of popular education. In pursuance of these objects a series of conventions were held in each county in the autumn of 1838, composed of school officers, teachers, and friends of school improvement. The convention for New London county was held in Norwich, on the 6th of November, before which the Secretary of the Board, Hon. Henry Barnard, delivered an address, in which he advocated as the conditions of any thorough and permanent improvement of the Common Schools of the State—1. An immediate revision of the laws relating to schools, by which each city and village should constitute one district with power to lay taxes and establish a gradation of schools; and each town be made a school society with similar powers, exercised through a single committee. 2. An immediate and thorough renovation of the school-houses, so as to make them attractive and promotive of the health, comfort, and successful labor of teacher and pupils.

3. The consolidation of districts in cities and villages under existing laws, and the establishment forthwith of a Public High School in each society, in which the course of instruction should be "good enough for the best and cheap enough for the poorest family." 4. The exercise of the power of taxation, which had ceased to be obligatory since 1822, by each school society in aid of the avails of the School Fund, and of rates of tuition collected in advance of the opening of the school for the payment of teachers. 5. The selection of teachers in reference to their natural aptitude to teach, and their previous special training for the duties of the school-room, and their examination by a County Board. 6. The establishment of one or more Normal Schools by the State, or by voluntary association, for the special preparation of teachers, and the assembling of teachers' classes or conventions for a few weeks in each year, in the several counties, for a review of the best methods of school government and instruction. 7. The faithful administration by school committees of the laws relating to schools, as they exist, or as they may be amended, and the awakening of public and parental interest in the condition and improvement of the schools by the publication of an annual report, and by the circulation among school officers, teachers and parents of a periodical exclusively devoted to schools and education. The delivery of this address occupied nearly the whole of the afternoon, and in the evening* the various topics were discussed and enforced by members of the convention for our own and other towns in the

* The Connecticut Common School Journal for December, 1838, thus speaks of the Evening Session.

"There was one of the most interesting debates, which this movement in behalf of our Schools has called forth. The suggestions of Mr. Foster, as to the difficulty, if not the impracticability, of making our School System as thorough as that of Prussia;—of Dr. Hooker, on the importance of linking our schools in with our town policy, so as to make it the interest of all to look after their management, as after the expenditures for roads and bridges;—of Mr. Rockwell, on the necessity of making our common schools better, before we can expect parents who are able and willing to support private schools, to give them up;—of Dr. Eaton, on the improvement which a gradation of schools would effect, so as to bring the younger children, where it is practicable, under female teachers, and the older and more advanced under a competent male teacher, and on the importance of creating a County Board, or Senatorial District Board, of School Examiners and Inspectors;—of Mr. F. A. Perkins, on the necessity of going up to the fountain head in our plans of improvement, and providing seminaries where teachers could be specifically trained for their arduous employment;—of the Rev. Mr. McEwen, of New London, in his searching inquiries into the manner in which the duties of the school committees had been performed;—of Mr. Breed, as to the miserable policy of hiring cheap teachers, &c.:—these, and other suggestions, were well calculated to interest and instruct all.

The President of the Convention, Hon. Calvin Goddard, in acknowledging

county. In this and similar conventions held in this and other towns of the county and state, the seeds of a thorough school reform were sown broadcast over the community, which would have ripened sooner but for untoward political influences.

In January, 1839, a serious effort was made to effect a reform in the schools of the society. This movement took its rise in the debates of the Norwich Mechanics Association, in whose meetings the question had been discussed at intervals for two years, "Is the School Fund of Connecticut, as at present used, an injury or a benefit to our schools?" The conviction became at last quite universal, that without additional taxation of property for the support of schools, the fund is a decided injury to the cause it was intended to promote. A petition was accordingly prepared, praying the Legislature to grant to school-districts the power of imposing taxes for the support of schools.

By an act of the Legislature, in May, 1839, drawn up by the Secretary of the Board of School Commissioners, in pursuance of the recommendation of his report for that year, school-districts as well as school societies were authorized to provide one or more school-houses, to employ one or more teachers, establish a public library, and to impose taxes on property for these and other school purposes. In addition to the power by societies of consolidating one or more districts, adjoining school-districts, were authorized to associate together and form a union district with power to maintain a union school for the benefit of the older and more advanced scholars of such associated districts.

After the passage of this act, the subject of forming a Union District out of the two districts into which the village of Greenville was divided, in one of which a gradation of schools had already been established in a new school-house with two rooms, erected in 1837—was fully discussed, and resulted in re-uniting the two districts under the name of the Greeneville School District, in the erection of an additional school-house, and an extension of the system of gradation already introduced. The first meeting of the united district was held August 14th, 1839, and the new system went into operation in December of the same year. The movement was popular. The children became deeply interested. Better teachers were procured, and in 1841, a class of lads were

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a vote of thanks which was enthusiastically passed, said he had never presided over a meeting characterized by greater harmony, and interest; or where he had more occasion to be proud of the ability and eloquence of the speakers."

prepared for College, one of whom graduated at Brown University, another bore away the highest honors from Yale, and a third, after a scientific course at New Haven, became distinguished as a Chemist in connection with the British Survey in Canada, and is now Professor of Chemistry in the University of Quebec. During that year this school gained the reputation of being the best district school in the State. During the fifteen years which have succeeded, these schools have maintained their excellence and their popularity. The enterprise of the citizens of Greeneville has been a standing rebuke to other portions of the town. These schools are greatly indebted for their establishment and continued efficiency to the exertions of Mr. William H. Coit, of Greeneville.

In the spring of 1840, the Rev. S. B. Paddock and Mr. Francis A. Perkins, a sub-committee of the Board of Visitors, submitted a report to the Society, in which they recommended that the number of districts be reduced to three, *viz.:* "the 1st, 2d and 3d, to constitute the *first;* the 3d and 4th at the Falls, the *second;* and the old 5th and 7th, now united in Greeneville, the *third.*" The scholars were to be classified in each district by placing the girls and boys under eight years of age under female teachers, and the girls over eight by themselves under female teachers, and the boys under a male teacher with female assistants. The schools at Greeneville were to be continued as they were in three schools which were "unsurpassed by any in the State." This plan was, after some discussion, adopted without a dissenting voice, but was reconsidered in September of the same year, and the project was for that time abandoned.

The condition of our schools for several succeeding years was truly lamentable. The various departments of instruction were arranged without any defined system of gradation. Many of them were kept in crowded, unventilated, and sometimes even filthy rooms. The teachers were inadequately paid. School-meetings commanded an attendance of from ten to twenty persons only, and the whole subject of education seemed to occupy a very subordinate place in the interest of the community at large. The exertions of some individual teacher would occasionally elevate a particular school. But unsustained by the support of the adjoin ing portions of a well compacted system, it would soon sink back again to the general level. But very few of the children in the public schools received a thorough training even in the rudiments of an English education, while no facilities for higher study were

afforded to those who desired to become master mechanics, accomplished navigators, or thorough business men. Preparation for college and professional life was confined to the rich. No poor boy, however great his talents, or noble his aspirations, could enjoy the privileges of classical study.

About the year 1848, six gentlemen, deeply interested in securing a reform, undertook the office of school visitors, determined that if it were possible to accomplish it, the schools should be made thorough and efficient, without a change of system. A school-district was assigned to each of five members of the board, the schools of which should be under his immediate care, while to the sixth was committed the general superintendence of the whole. The schools were all visited at least once in a month and their condition reported to the board. After two years' trial of their efforts, though some gratifying improvement had been made, the board came unanimously to the conclusion that nothing could be accomplished, which would repay the outlay of time and labor, unless the whole system of organization were radically changed.* Accordingly in December, 1849, they recommended to the society the same plan of consolidation and gradation which had been adopted and rejected eleven years before, omitting however the proposal for a High School. The simple and sole object was to procure gradation and system for the lower schools. At this juncture the Hon. Henry Barnard, then State Superintendent of Common Schools, gave several addresses to our citizens which contributed an important aid in the movement. His services were also conspicuous during the preceding struggle. A special committee was appointed by the school society to ascertain the facts bearing upon the subject, who, after a most careful and laborious investigation, reported that the schools and the school-houses were in a very low state, that the interest of parents and children in education was so slight that of 1,800 children within the limits of the society, between the ages of four and sixteen, more than 600 were unconnected with any school, public or private;† that an organized and graded sys-

* We consider this a decisive experiment as respects the working of the old society and district plan to which Connecticut has been so long accustomed. No effort was spared to make it successful. But it failed. If we mean to have gradation, system and thoroughness, we must have a simple town organization with a single board to control and manage it.

† It will be interesting to note here the improvement which a change of system has produced. The central districts of the society, have since become

tem would be far less expensive than the one in vogue, if the schools were otherwise of the same quality as at present; that after suitable houses should be built and paid for, we could even have far better schools at a less cost; concluding with the recommendation of a plan in accordance with their views.

The scenes which followed the presentation of this report, we are only too happy to bury in oblivion. Without therefore detailing incidents over many of which even stern history will permit us to draw a veil, it is enough to say, that the simple and moderate proposal to unite our central school-districts, so far as by a distinct vote of each they might consent to the plan, for the purpose of properly grading and organizing the schools, called into activity an opposition so unreasonable and unscrupulous, that it would be difficult to find its parallel among the multitude of similar popular excitements which school reform in New England has uniformly encountered. But in this case, as in many others, evil worked out good. For several weeks the public mind was kept in a constant excitement upon the subject, and an amount of information was diffused through the community greater than twenty years of ordinary effort could have given. The raised expectations of the people were however doomed to disappointment. The whole project was scornfully rejected! This was a glorious defeat, for it had in it the germs of a future triumph. The friends of education were happy to see it perfected by the exclusion, by a popular vote, of the offending visitors from office. Men had now full leisure to look upon what had been done. The eyes of hundreds were directed to the public schools. Are these things so? was the question in every mouth. Gradually the people became convinced of the facts which had been reported by the committee. Indignation and mortification were excited by turns in view of the past. Anxiety for the future gave birth to a robust determination which was a sure presage of success. The lower the schools sunk, and the more closely they were scrutinized, the more certain became the coming reaction.

This was the soil into which the seed was cast from which grew

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consolidated and have adopted an admirable system of graded schools, expending more than $55,000 upon new buildings. In those districts, of 961 children, 710 are in public schools, 161 in private, leaving only 90 of the whole number out of school. Sickness, or tender age, or early entrance upon business, will probably account for the absence of the 90. We may say that now all our children, who are capable of attending, are in school. Truly a wonderful change!

the grand enterprise whose successful beginning we celebrate to-day. In the midst of the struggle, a gentleman, since a large donor to the institution, declared more in jest than in earnest, "These men talk about a High School! I would not take one for a gift if it is to be managed by such assemblages as we have lately had at the Town Hall. I am in favor of an endowed school and would give $5,000 towards one." This chance remark suggested the idea of this Institution, and led to a series of inquiries and investigations which were continued for two years. The first question was, Are public high schools, supported by taxation, in all respects successful? the second, Would endowed free schools remedy their defects? the third, On what plan should endowed schools be conducted in order to insure success? On these points either by correspondence or by personal interview, a large number of the leading educators of the country were consulted. It was ascertained that in all quarters apprehension was beginning to be felt in regard to the working of our higher public schools. The lower schools up to the grade of the grammar school, were well sustained. Men were to be found in all our communities who had been themselves educated up to that point, and understood practically the importance of such schools, in sufficient numbers to control popular sentiment, and secure for them ample appropriations and a steady support. But the studies of the High School,—Algebra, Geometry, Chemistry, Natural Philosophy, Ancient History, Latin, Greek, French and German, were a perfect "terra incognita" to the great mass of the people. While the High School was a new thing and while a few enlightened citizens had the control of it, in numerous instances it was carried to a high state of perfection. But after a time the burden of taxation would begin to be felt. Men would discuss the high salaries paid to the accomplished teachers which such schools demand, and would ask, "To what purpose is this waste?" Demagogues, keen-scented as wolves, would snuff the prey. "What do we want of a High School to teach rich men's children?" they would shout. "It is a shame to tax the poor to pay a man $1,800 a year for teaching children to make xs and pothooks and gabble parlez-vous." The work would go bravely on; and on election day, amid great excitement, a new school committee would be chosen in favor of retrenchment and popular rights. In a single day the fruit of years of labor would be destroyed. Such occurrences it was ascertained, had already become sufficiently numerous to excite serious alarm among the most intelligent friends of educa-

tion. Even in communities where the High School had been uniformly prosperous, it appeared that the same influences were at work and awakened constant apprehension. The proposal to establish an endowed High School was regarded by all the gentlemen consulted with great favor, and a uniform opinion was expressed that, properly managed, it would supply all the defects in the public High School. Indeed the plan though generally pronounced as impracticable, was hailed with enthusiasm, as at least a theoretical solution of a very perplexing problem.

The next point was to ascertain the principles which should form the basis of such an enterprise. The Putnam school at Newburyport seemed to furnish the best model for imitation. This school had received an endowment of $50,000 from Oliver Putnam, Esq., of Newbury, and was then in successful operation, extending a most beneficent influence over a wide circle of common schools in Eastern Massachusetts. One unfortunate error had however been committed by its founder in assigning the election of trustees to the town. A noted political leader, taking advantage of this circumstance, persuaded the people that Mr. Putnam's design in founding the school, was not so much to raise the standard of education, as to relieve his fellow citizens from the burden of taxation, and proposed that the school should be made a substitute for one of the public schools of the town. There is great danger that the benevolent design of Mr. Putnam, will be frustrated by the same popular influence which is sapping the foundations of many of our public high schools. Another salutary caution was given by the experience of the endowed school at Colchester. The funds there, are under the control of a self-perpetuating board of trustees. But the school embraces all departments of instruction from the infant school upward. Thus it becomes a rival to the common schools, and depresses rather than elevates them. Various other points in the plan became the subject of careful thought and inquiry. The effort was made to obtain all the light which the experience and skill of practical educators could furnish, though the painful conviction still remained, that others would, in like manner, hereafter learn wisdom from the errors into which we might fall.

After the plan had been matured as fully as possible and the important facts bearing upon the case had been collected, a few of our most intelligent citizens were consulted in regard to the possibility of realizing it in Norwich. These gentlemen all received the proposal with deep interest; but the effort to raise $75,000 for such a

purpose in our little city, seemed to most perfectly visionary. The very magnificence of the project, however, awakened enthusiasm. Desire, as is often the case, was stimulated by the difficulty of securing gratification. An intense feeling, already described, created by the contest of 1850, and by the present lamentable condition of the schools, existed through the community. The moment was in all respects propitious. It was suggested that some one individual might be found who, imitating the example of Mr. Putnam, would give the entire sum required. Our honored President advised that ten persons should be invited to give $7,500 a piece, intimating that he would be one of the ten. Accordingly in the spring of 1853, a letter was addressed to a few of the wealthiest and noblest men of the city, detailing the facts in relation to our schools, giving some testimony in regard to the usefulness of high schools in other places, setting forth the superiority of an endowed school to one maintained by taxation, and unfolding the main features of the proposed plan for this school. This letter was first put into the hands of our President, who at once assumed one-tenth of the amount. It was next presented to another member of the present board of trustees, to whose persevering efforts we are mainly indebted for the final completion of the subscription, and after due consideration another tenth was added. Next a note was dispatched to another member of the board of trustees, who with the President has since enlarged his subscription to more than $10,000, and in half an hour the answer was returned that he would give "one-tenth of $75,000, or one-tenth of any other sum which might be raised for the purpose." Next the owners of this beautiful enclosure were applied to. Providence had there also prepared the way, for they were found considering with deep interest an independent plan for devoting their grounds to a similar purpose, and after careful examination, they gave cheerfully these five ample acres for the use of the academy. Thus four-tenths of the amount were secured. Subscriptions of twentieths followed in a like liberal spirit. The case of one noble man, since gone to his reward, should be especially mentioned, who did not even wait for an invitation to aid in the enterprise, but of his own accord gave his subscription of $3,750, with some good natured reproaches that he had been passed by. But this fair wind and these bright skies continued but for a time. Darkness soon came upon us, and storms threatened our enterprise more than once with shipwreck. We were disappointed in the hope of obtaining the entire sum from a

few individuals. The whole number of subscribers was thirty-five, the subscriptions varying from $500 to $7,500. By the blessing of Heaven, the whole amount was however finally pledged. And we desire here joyfully to recognize and devoutly to acknowledge the good hand of our God in all this enterprise. His providence prepared the place fitted for this undertaking in the succession of events. An influence from Himself could alone have inclined the hearts of the people to this unexampled liberality. And sure we are, that from Him only could be emanated the courage, and hope and strength which sustained the hearts of those who, for fifteen months, toiled through many a period of darkness and doubt, to a consummation which we can not err in regarding as fraught with blessings for the future generations of our children, the value of which no human mind, though aided by the most ardent enthusiasm, can fully estimate. "Not unto us, not unto us, but unto thy name, O God, give glory!"

A few additional facts will close this historical sketch. A corporation consisting of the thirty-five original donors, was constituted by the legislature of 1854. Whenever the number of this corporation shall be reduced by removal or death, below the number of twenty-five, the remaining corporators are empowered to elect new corporators, so that the number shall be maintained at twenty-five. This is therefore a self-perpetuating body. The corporation elect yearly three trustees, to hold office for three years. This board of nine members has the entire charge of the Institution during their term of office. The entire sum at first subscribed for the academy was about $76,000. Of this, $50,000 are reserved as a permanent fund for the support of teachers. Of the balance, $8,000 are invested in five and one-half acres of land, leaving $18,000 for the building. This sum being deemed insufficient to erect a house adequate to the anticipated wants of the Institution in coming years, $10,000 additional were raised, $4,500 of which were subscribed by three of the largest donors to the previous fund. Three individuals have therefore given over $10,000 each, and another $8,000 to the academy, and the whole number of donors is increased to forty. As a crowning glory to the whole enterprise, the donors of the land occupied by the academy, have made an additional gift of $5,000 for the endowment of a library, the income of which is to be appropriated annually to the purchase of books, preparing a room at the same time for its reception, and furnishing

a large number of valuable works for immediate use. This is to be called the "PECK LIBRARY."

Such, citizens of Norwich, is the magnificent gift which a few noble men present to us to-day! These grounds, this building, these funds, they now commit to the guardianship of trustees, for the benefit of our children and our children's children, down to the latest generations. Nearly one hundred thousand dollars have been withdrawn from the business, the accumulations, nay in many instances from the ordinary comforts of our neighbors and friends, and with a free heart and an open hand, they bid us approach and enjoy the whole on terms of perfect equality with themselves. They ask no remuneration. They demand no return. They have done this generous deed for the cause of education in this community; and whether we receive it with gratitude or indifference, they will have their reward. Yet who does not feel that some acknowledgment is due to these noble men? Who would not feel ashamed if they should have occasion to say that, as they speak of this enterprise, no response indicating appreciation and interest is returned, and as they mention the few remaining necessities of the Institution to those who are to share in its privileges, whose possessions have been and are to be enhanced in value by its establishment, they should meet with a cold refusal accompanied by the intimation that those who had already given thousands should themselves bear the whole remaining burden. Surely that is not the gratitude of a generous high-minded community! That shall not be our response, fellow citizens. I will venture, in your name, to turn to these our benefactors and say—

We accept this magnificent Institution! We thank you for it! We pledge ourselves to watch over it and to cherish it. It shall never want while we have the ability to provide for it. If the growing necessities of the community, or the advancement of education in our land, demand, in the future, the enlargement of its plans and its means, to the full extent of our ability, we will lend our aid. We will strive to make it the glory of our beautiful town—the home of sound and liberal learning—the arena of a severe intellectual discipline—the center of a refined culture in the elegant arts—the forum upon which shall reappear the masters of eloquent speech—the academic hall which shall reutter the teachings of the academic groves—the beautiful temple where "the Fear of the Lord which is the beginning of wisdom," shall lend the fair sisterhood of the arts, the sciences and the philosophies, with all the

humanities of oratory, history and song, to the altar of Him who made this wondrous mind of man, to live and learn and grow forever!

I now pass to state directly the aims and plans of the Norwich Free Academy.

It appears from the foregoing history that this Institution had its origin in efforts, repeatedly defeated, to provide, for all classes in the community, *an education adequate to all the demands of their future occupations.* This is still the desire of its friends. They have no wish to unfit the scholars of this school for the ordinary employments of life. But they do wish to prepare them for a *high success* in whatever employments they may engage. They intend that mechanics and merchants and navigators and agriculturists shall be educated here, who by superior culture and learning shall become masters in their business. They intend that young ladies shall be educated here, not to flit like butterflies through the world, as beautiful and as useless as they, but to adorn society, to mould the mind of youth, to be the honored heads of well-ordered households and to charm by the beauty of an elegant culture and a disciplined mind. They wish to offer to the poorest boy in the community, who aspires to join himself to the noble fraternity of scholars, the opportunity to fit himself for the university or the scientific school. Their motto is—Every employment is dignified and honorable to one who is determined to excel.

It has also appeared that it is a prime object with the founders of this Institution *to improve and perfect the lower public schools.* They charge it upon their successors to see to it that this design be not defeated. They wish to link this school to the system of public schools in this town. They desire that it should by the character of its examinations, encourage, first, *thoroughness* in the studies pursued in the lower schools, and secondly a perfect system and an exact gradation in those schools, so that no class of schools shall cover ground occupied by another. They hope, ere long, to see throughout the town an organization something like the following.

1. The alphabet or *oral school*, in which shall be collected children under the age of seven years, who shall be taught or trained chiefly by oral instruction. The grand object in these schools should be to secure a healthy and uniform development of the budding faculties of the infant mind. They should be schools for training rather than for instruction—for the training of the physical, intellectual and moral natures alike. The elements of elocu-

tion, music, drawing and penmanship might be incorporated with intellectual sports of their little ones. All work should be play in these schools, but the play should be so adroitly contrived as to promote the great ends of education.

2. The *Primary school*, where children who have learned the alphabet, shall be taught to speak their mother tongue, by elementary lessons in elocution; to read it, by combining letters into words; and to write it, by thorough drilling in spelling and by practice in the rudiments of penmanship. First lessons in arithmetic and geography might be sparingly introduced, and special exercises for the development of the various intellectual faculties should be continued. The children would usually leave this school at the age of ten.

3. The *Intermediate school*, in which the study of the English language should still be made prominent, in the departments of speaking, reading and writing. In addition, the work of constructing the language should be commenced, by the study of the rudiments of grammar, and simple exercises in composition. Arithmetic and geography are prominent studies in this department, and the work of mental training should be prosecuted with vigor.

4. The *Grammar school*. Here the study of elocution, penmanship and grammar, before commenced, are to be continued and carried to as high a point of excellence as possible. Arithmetic and political geography are to be completed. Practical exercises in constructing sentences, and to a limited extent, epistolary and historical composition, should be introduced. The history of the United States, the elements of physiology, with other studies should be added, as may be found expedient, while the great work of mental training should be carefully prosecuted.

5. At this point we propose to introduce this Free Academy into the general system. Its founders desire that it should, by every possible influence, encourage the introduction into the lower schools of the general plan here sketched. This course of elementary study lies at the foundation of excellence in every calling in life. It is necessary to the laborer, the artizan, the merchant and the professional man alike. After entering this Institution, the courses of study adapted to different classes of pupils will necessarily diverge. But the same foundation must be laid for all.

A third prominent design in the establishment of this Institution is to promote within it, and to encourage without it, *a thorough mental discipline*. The founders wish explicitly to declare that *education*, that is, a *leading-forth* of the mental powers, is, in their esti-

mation of far more importance than mere instruction. Knowledge, stored in the memory, may easily be lost, but the power to acquire knowledge, and to appropriate it, as easily as the lungs receive and appropriate the vital air, once gained, is never lost. Amid the pressure and bustle of practical life, principles of philosophy may be forgotten, the processes of logic may be thrown aside as useless rubbish, trains of argument may fade from the recollection; but a logical habit of thought, a clear, reasoning mind, once possessed, is a treasure forever. When our schools engage systematically in this business of mental discipline, they will do a work of true sublimity. Neither in the coming years of life, nor through the ages of eternity, shall that work be undone. Such are the convictions of the originators of this enterprise. It is their desire to see a perfected system of mental culture, adapted to the various grades of schools, and calculated to strengthen every mental faculty, introduced into all our elementary institutions from the oral school to the high school. In respect to this Institution, without attempting to prescribe any special course of study, they desire that this grand object shall be kept distinctly in view in arranging the studies, especially of the first two years, and that all the classes of students, whatever their ultimate destination in life is to be, should be subjected to a course of training as thorough and complete as practicable. And they add their conviction that the course best adapted to this purely gymnastic purpose, is the study of the ancient languages, and of the higher mathematics, combined, for purposes of a more elegant culture, with attention to the modern languages, English literature and the fine arts.

The next point which the founders of this Institution desire to notice is the importance of adapting the course of study to the necessities of students destined to *different callings in life*. Accordingly, after securing for all alike, the advantages of the mental training before mentioned, they anticipate the necessity of instituting four distinct courses of study.

The first is designed for those who are destined to enter the college or the university. This course will be almost entirely a classical one, including only to a limited extent the mathematics and the natural sciences. Regarding as they do, this department of education as of leading importance, and as essential to the culture and development of the master minds in the community, they desire that this Institution should furnish every possible facility for the

most thorough classical scholarship. In this direction they wish to connect this Institution with the college.

The second course is designed for those who wish to prepare for the scientific or polytechnic school, with a view of making science a profession. These schools are as yet in their infancy in this country, and the requirements of this class of students will be more easily determined in future years.

The third course is designed for boys who are to complete their school education in the Institution, and enter the various practical employments of life. This course is capable of almost indefinite subdivision and enlargement, the extent of which must be determined by the means possessed of furnishing instruction. The founders express their desire that so far as possible each boy may receive that instruction which will make him thoroughly acquainted with the *principles* of the business which he is to follow, so that he may not be a mere laborer, or journeyman, but a master of his trade, or occupation.

The fourth course is designed for girls who are to finish their school education in the Institution. The founders of this school regard this department of their labors as second to no other in importance if indeed it should not be placed in advance of all. Their sentiments on this subject are briefly as follows:

They believe that the great defect of female education, at present is, the undue prominence given to mere instruction at the expense of mental training. They therefore desire that the studies of the young ladies in this Institution should be modeled somewhat after the gymnastic course designed for the training of professional men. They would be glad to have this method pursued if possible so far as to cover a large portion of the classical course prescribed for the boys who are to enter college. If in any instances this is found inexpedient, they desire that this great principle should still be kept in mind in the arrangements of a more purely English course. They wish that the young ladies who graduate at this Academy, shall be able to think clearly and reason correctly and to express their thoughts either in speech or writing with precision, elegance and force. They wish on the other hand to state their conviction that the female mind is in some respects essentially unlike that of the other sex, as the demands which are made upon it are also essentially different. They do not wish to cultivate a masculine strength at the expense of a feminine facility and grace. This course would rob woman of her power and

alienate her birthright. They desire therefore to mingle with severer gymnastic studies, the study of elegant literature, and of such natural sciences as will lead her steps among those objects of beauty with which God has plentifully filled our world, and of those elegant arts which place man at the side of the great Creator, and enable him, as the child imitates the voice and the hand of the parent, to become himself a creator—elaborating in marble or upon canvas, forms of beauty, and in song reproducing and recombining the harmonies of nature.

In all these various courses they desire that the study of our own mother tongue should have an important place. Next in importance to the power of thinking, they rank the power of using with accuracy, readiness, elegance and force, the great instrument of thought—the language of common life. The modern languages should also find a prominent place in the studies of the school.

Finally, the founders of this Institution desire to repeat, what is already emphatically asserted in the constitution, that they wish the Bible to be made a text-book in the school. By this they do not mean merely that it should be read at the daily devotions, but that it should be studied, as a history, as a book of moral science and of practical ethics, and as a model of literary excellence. They do not intend to tolerate the introduction of any instruction or influence on points of disagreement among Christains; they do not wish that Theology, in the technical sense, should hold any place among the studies of the school. But they do intend that this shall be a Christian Institution; that the motives employed shall be drawn from the truths of the Divine Word; and that the moral conduct enjoined shall be the morality which was taught by our Lord and Savior Jesus Christ and which was exemplified in his spotless life.

In closing this statement of their sentiments and plans, the founders of this Academy would not conceal the fact, that the designs they have now unfolded, which are far more extended than those they at first entertained, will require, as the number of scholars increases, a large increase of the endowment for the support of teachers. But they believe that God, who has so manifestly aided us hitherto, will incline the hearts of many, who shall here enjoy for their own children, advantages procured by the generosity of their fellow citizens, to do for the Institution all which shall be required to make it a blessing and a glory to this ancient town. They wish however to have it fully understood, that the school can not be

brought up to the standard here indicated, at once. The able and experienced teachers, to whom, with the most unlimited confidence we have committed the opening of this enterprise, will do all in their power to bring order and system out of the chaotic elements which they will here find collected. But years must elapse before their ideal can be fully realized. Meantime let them be assured of a hearty sympathy, and a firm support. Honored and beloved as they have been, in other communities, they will, we are confident, feel that they have met with no loss in coming to this. They will here be under no necessity of keeping a watchful eye upon an ever-changing public sentiment, swayed as it constantly is, by appeals to prejudice and passion. They need be under no apprehension that the labors of years will be swept away by a freshet of popular excitement as sudden as unaccountable. We assure them of a steady coöperation in the execution of their plans of culture and instruction, in the administration of a wholesome discipline and in all their efforts to enlarge the sphere and perfect the system of the school.

And now with many anxieties, and many fears, and yet with a good courage and a strong hope, those who have established this Academy commit it to the community and to coming generations. THEY DEDICATE IT TO DAY TO THE CAUSE OF POPULAR EDUCATION. They anticipate for it a wide influence and a great success. With confident expectation they look foward to the time, as not far distant, when, embraced within the circle of its genial influence, a complete and perfected system of schools shall spring up through this queenly town, dotting with beautiful structures her fair territory, as jewels glitter upon a royal robe. They trust that within its walls, the facilities for a higher education will be furnished to our sons and daughters, so cheaply that the poorest can enjoy them, and so amply that the richest shall be grateful for the privilege of receiving their benefits.

With these hopes and these plans, they now launch this great enterprise upon the bosom of the wide future. May it prove staunch and strong! may the winds of Heaven blow kindly upon it! and may it, year by year, return to our hamlets and our homes its priceless freight of youthful minds, enriched by learning, developed by a liberal culture, refined by the study of all that is beautiful in nature and in art, and prepared for the highest usefulness and the purest happiness.

PLANS OF SCHOOL-HOUSES IN NORWICH.

NORWICH FREE ACADEMY.

THE NORWICH FREE ACADEMY represented on pages 696 and 697, occupies one of the most eligible sites in the world,—a lot of over six acres perfectly level in front, and rising into a beautifully wooded hill in the rear, commanding a fine view of the city and surrounding country.

The building was erected after plans by Mr. Evan Burdick, Architect, Norwich, at a cost of $30,000 exclusive of the land.

The building is 87 feet with a front projection of 24 feet by 12, surmounted by an Observatory.

In the Basement, besides the furnaces and the coal-bins, there is a working laboratory, connected by stairs with the philosophical lecture room on the first floor.

On the first floor, besides separate clothes room, one for boys, and the other for girls, there is a Lecture room, and a Library, for the supply of which, Gen. Williams and wife have given a fund of $5,000.

The Second and Third floors are now left, each in a single hall with two class rooms attached, but are capable of being subdivided into two rooms, if the organization of the Academy should require it.

For convenience of access, for spaciousness of halls and class rooms, for light, warmth, ventilation, and seating, for the accommodation and use of apparatus, and library, this edifice is not surpassed by any other erected for educational purposes within our knowledge.

CENTRAL DISTRICT SCHOOL.

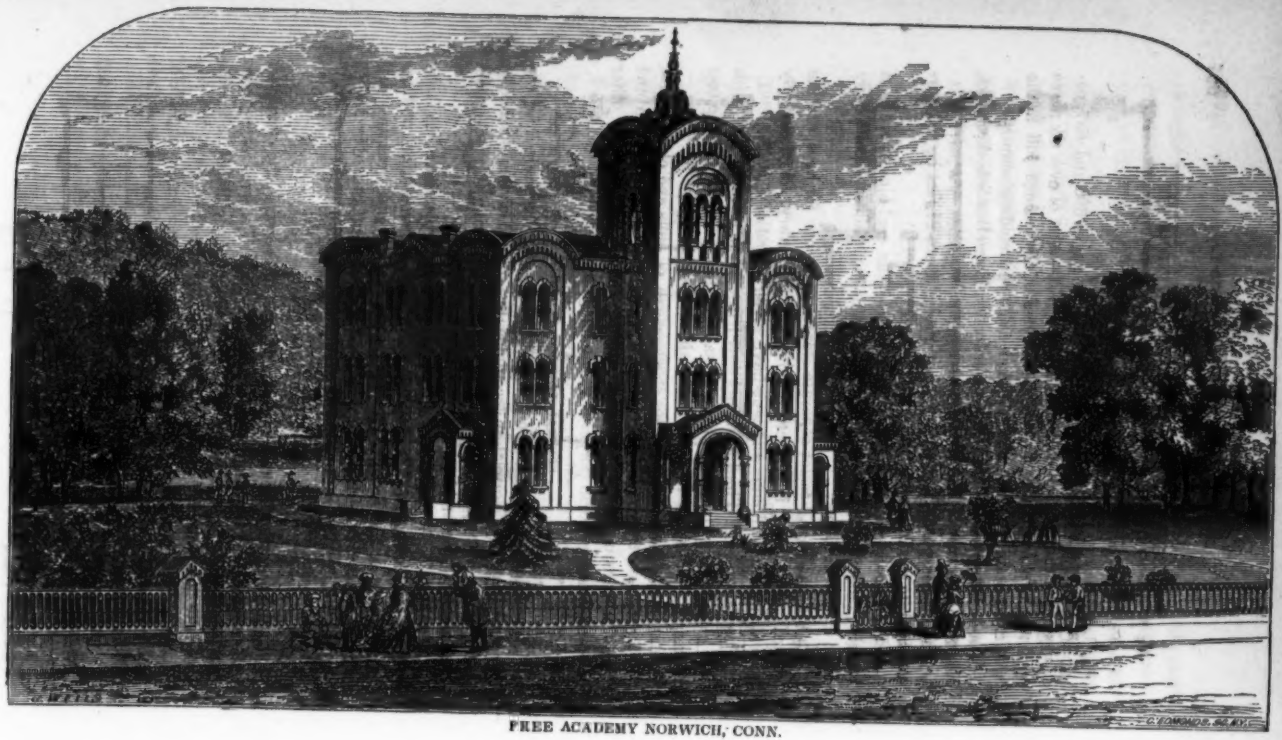
This building represented on pages 698 and 699, was erected by the Central District of Norwich to accommodate a graded system of schools; there being six rooms, thereby accommodating as many classes or departments. The architect was Mr. Evan Burdick.

The building is 76 feet by 58 feet, with a front projection of 14 ft. by 14 ft. The lot is in 150 feet by 280, well graded and drained and enclosed with an iron fence. The rooms are well lighted, warmed and ventilated, and furnished with desks and chairs manufactured by Joseph L. Ross of Boston. The cost of grounds and building was $37,500.

PRIMARY SCHOOL.

In the organization of the public schools of Norwich, the committee contemplate the establishment from time to time of a sufficient number of Primary Schools, to accommodate all the young children in the immediate neighborhood of their homes. The diagram on page 700, represents one of the houses erected for a school of this grade, capable of accommodating 112 pupils divided into two classes or departments. Each room is furnished with Ross's school-furniture.

The material is wood, and the cost independent of the site was $3,000. Mr. E. Burdick, Architect.



FREE ACADEMY NORWICH, CONN.

Fig. 2.—Basement.

A.—Furnace Room.
B.—Laboratory.
C.—Coal Room.
D.—Boys' Play Room.
E.—Girls' Play Room.
a. a.—Stairs.
b.—Area Windows.
c.—Furnaces.
d. d.—Basement Stairs.
e.—Stairs to Laboratory.
f.—Fire Place.
g.—Iron Columns.

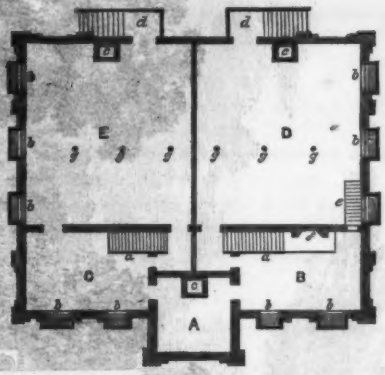


Fig. 3.—First Floor.

A.—Teachers' Entrance
B.—Boys' Hall.
C.—Girls' Hall.
D.—Boys' Clothes-room.
E.—Girls' " "
F.—Lecture Room.
G.—Library.
H.—Hall.
I.—Platform.
a. a.—Stairs.
b. b.—Wash-stands.
c. c. c.—Porches.
d. d.—Teachers' Closets.
e.—Laboratory Stairs.
f.—Ventiducts.
g. g.—Seats.
h.—Iron Columns.
i.—Apparatus.
k.—Book Case.

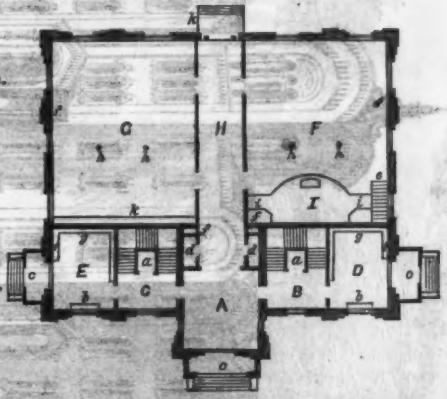
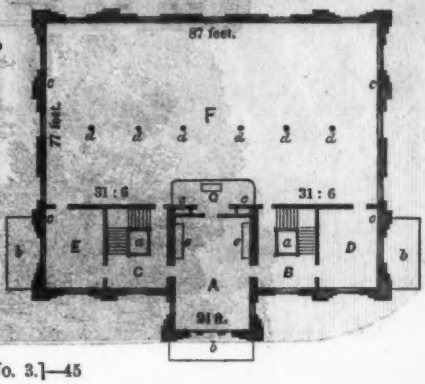


Fig. 4.—Second and Third Floors.

A.—Teachers' Room.
B.—Boys' Hall.
C.—Girls' Hall.
D.—Recitation Room.
E.—Recitation Room.
F.—School Room.
G.—Platform.
a. a.—Stairs.
b. b. b.—Roofs.
c.—Ventiducts.
d.—Iron Columns.
e.—Book Cases.



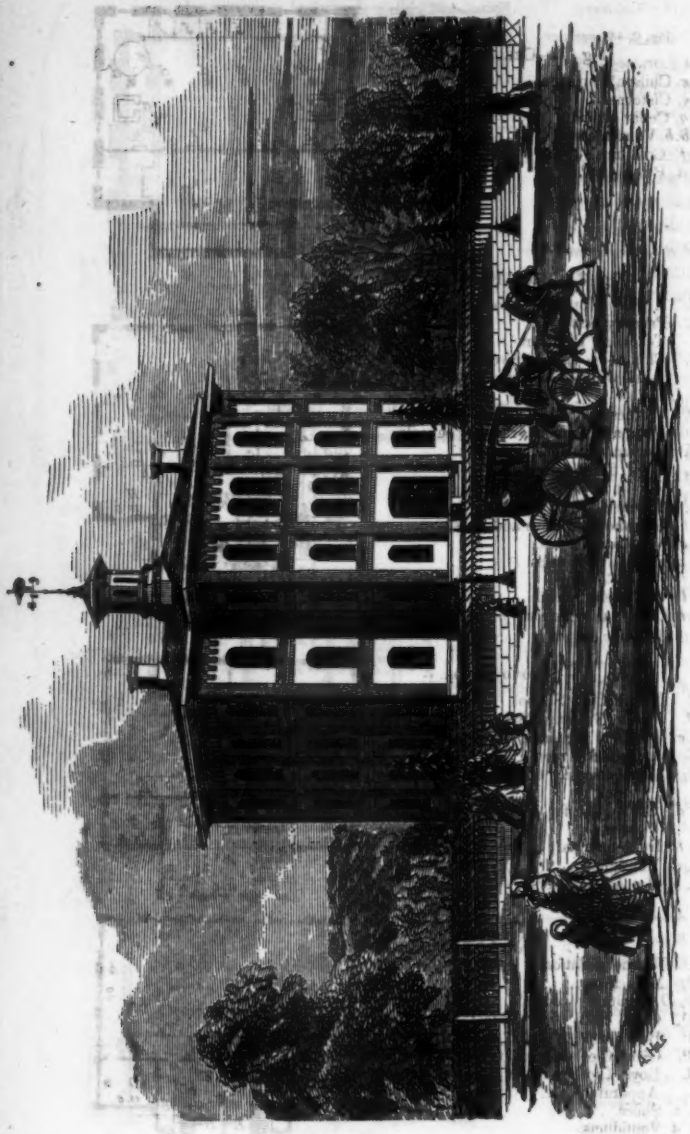


Fig. 1. Perspective.

Fig. 2.—Cellar.

c. c. Chilson's furnaces.
e. e. Cisterns.
a. a. Cellar Stairs.
b. b. b. Ventiducts.
f. f. Coal bins.
d. d. Brick piers.

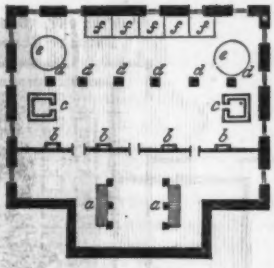


Fig. 3.—First Floor.

G. Alphabet, or Oral school.
F. Primary School.
e. Teachers' Platform.
E. Clothes-room for girls of Intermediate and Junior Grammar schools.
I. I. Halls.
D. Clothes-room for boys of Intermediate and Junior Grammar schools.
H. Recitation room.
C. Boys' Clothes-room.
B. B. Closet for Teachers.
A. Teachers' Hall.
Entrances for boys and girls.
c. c. Ventilation flues.
d. d. Sinks with pumps.
f. f. f. Iron Columns.
l. l. Umbrella racks.
h. h. Hot Air registers.

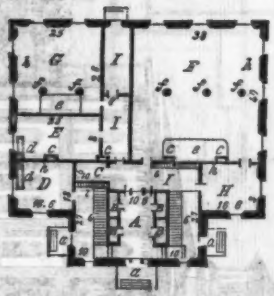


Fig. 4.—Second Floor.

C. Intermediate School.
D. Junior Grammar School.
e. e. Teachers platforms.
E. E. Recitation rooms.
A. A. Halls, one for boys, and the other for girls.
a. a. Stairs, one for girls, and the other for boys.
b. b. Iron columns.
d. d. Ventiducts.
h. h. Hot Air registers.

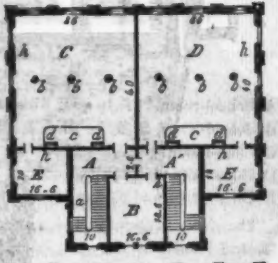
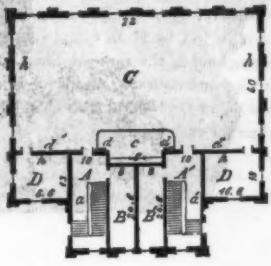
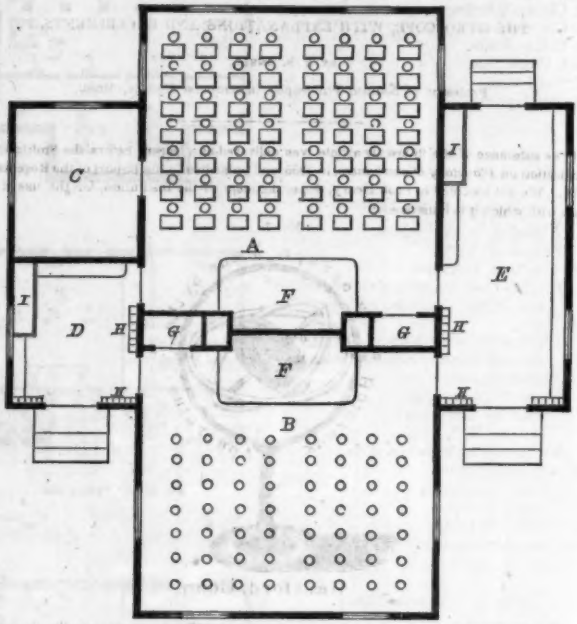


Fig. 5.—Third Floor.

e. Teachers platform.
C. Main Floor.
D. D. Recitation rooms.
A[1]. Girls' Hall, 10 by 27 feet.
A. Boys' Hall, 10 by 27 feet.
B[1]. Girls' Clothes-room, 8 by 24½ feet.
B. Boys' Clothes-room, 8 by 24½ feet.
b. Apparatus case.
a. a. Stairs.
d. d. Ventiducts.
h. h. Hot air registers.



PRIMARY SCHOOL-HOUSE IN NORWICH.



GROUND PLAN.

A School-room, 24 ft. by 24 ft. 6 inches.
B School-room, 24 ft. by 21 ft. 6 "
C Class-room.
D Boys' entry and clothes room.
E Girls' entry and clothes room.
F, F Platforms.
G, G Closets.
H, H Umbrella racks.
I, I Sinks with pumps.
V Flues for ventilation.

The above diagram represents the Ground Plan of a Primary School-house in Central District of Norwich, erected after plans by E. BURDICK, Architect, at an expense of $3,000. The main building is 50 feet by 25 feet, with two wings, each 25 feet by 11 feet, and one story high. It is built of wood and finished throughout in the most workmanlike manner, with a spacious play-ground, well graded and enclosed. Both rooms are furnished with Ross's furniture,—the Alphabet, or Oral school with chairs, and the Primary department with a desk and chair for each pupil.

XII. EDUCATIONAL MISCELLANY AND INTELLIGENCE.

THE GYROSCOPE, WITH EXPLANATIONS AND EXPERIMENTS.

BY E. S. SNELL,

Professor of Natural Philosophy in Amherst College, Mass.

[The substance of the following article was delivered as a lecture before the Smithsonian Institution on *Planetary Disturbances*, in 1855, and published in the Report of the Regents for 1856. We are indebted to Prof. Henry, Superintendent of the Institution, for the use of the cuts with which it is illustrated.]

No. 1.

Hartford, Conn.

The Gyroscope, in the form here represented, (Fig. 1.) is essentially the same, on a smaller scale, as the Rotascope of Professor W. R. Johnson, a description of which was given in Silliman's Journal, Jan. 1832. And the Rotascope was an improvement on Bohnenberger's instrument for illustrating the Precession of the Equinoxes.* The experiments of the gyroscope are not new, nor inexpli-

Fig. 2.

* Fig. 2, represents the rotascope recently constructed for the Smithsonian Institution, being somewhat more simple than that described by Professor Johnson. The disk, in the form of a very oblate spheroid, is about ten inches in diameter, made of box-wood, with a brass band in the equator, and a steel axis. This is suspended in two strong brass rings, the inner revolving on a horizontal axis, the outer on a vertical one, the pivots for the latter being at the top and bottom of a rectangular frame of mahogany, supported by a heavy base of the same material. The whole instrument weighs thirty or forty pounds. The disk is accurately centered in the inner ring, so as to rest in any position; and all the parts revolve on polished pivots, with the least possible friction. At the bottom of the frame lies a forked piece of wood, which works on a tight hinge, and can be turned upward so as to embrace and hold fast either the outer ring alone, or both the rings. By this means, the experimenter can have the use of both hands to give a swift rotation to the spheroid. This is best done as follows:

cable, as many seem to suppose; for they were all performed by the rotascope at least twenty-five years ago; and the *theory* of compound rotations, which these experiments illustrate, has been known for a century and a half, and applied to the explanation of the precession of the equinoxes, the retrograde motion of the moon's nodes, and the nodal movements generally in the solar system.

It is a direct result of the inertia of matter, that a body revolving freely on an axis, preserves that axis parallel to itself, wherever in space the body may be transported.

EXP. 1. The disk of the gyroscope, being accurately balanced in rings whose axes are at right angles, is free to take any position whatever. If now it be rapidly whirled, the whole instrument may be carried anywhere, and turned round or turned over in any manner, without disturbing the rotation of the disk; its axis will point in one and the same direction.

To understand the explanation of the following experiments, it must be borne in mind, that when a particle or mass of matter is impelled by two forces at once acting in different directions, it takes a direction *between* them, in a line nearest to that of the greater force. If, then, the disk is already revolving on its axis, and a force is applied to turn it on some other axis, the particles are subject to two forces at once, and will move in a direction *between* them, compelling the first axis to change its position *toward* that of the second axis. Every instance, in which the axis of the disk is seen changing its direction, is an example of the action of at least two forces, one of which is the inertia of the disk tending to revolve parallel to itself.

EXP. 2. Let the middle ring be so suspended in the outer one, that when all the rings are brought into one plane, the axis of the disk is horizontal. Place the axis north and south, with the top of the disk moving east, while the middle ring is vertically east and west. Now gently press the bottom of the middle ring northward; the north end of the axis begins to turn eastward, and will do so, (if the outer ring is held still,) till it points east. If the pressure is southward, the axis goes the other way. Consider the particles in the upper half of the disk; they are going swiftly eastward, and by the force on the ring, they are pressed gently southward; they will, therefore, go between these two directions, and revolve to the south-east; in other words, the north end of the axis moves to the east. The particles in the lower half conspire to produce the same effect; for they are revolving westward, and at the same time are pressed northward; hence they move N. W. The plane of the disk is now a little inclined to N. W. and S. E. and will become more so, if the pressure is continued.

EXP. 3. Again, place the disk as in (Exp. 2,) revolving also in the same direction, and while the outer ring is held in the east and west plane, with the finger-nail or the smooth end of a wire, gently press the north side of the inner ring westward; instead of moving in the direction it is pushed, the ring will *slide up* along the nail or wire, till the axis becomes vertical, when the ring for the first time seems to yield to the pressure. The reverse happens, if

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Having a strong smooth cord a yard long, with a wooden cross handle at each end, the operator doubles it in the middle, and placing the loop on a small pin at the middle of either half of the axis, he winds up both parts of the cord at once, and then draws the ends apart by the hands. The instrument thus stands firm between the opposite forces, and a double velocity is given to the disk.

The rotascope belonging to the Smithsonian Institution was copied, with some valuable improvements, from the one contained in the Philosophical Cabinet of Amherst College, which has been used in the lectures given there, for twenty-two years.

the pressure is the opposite way. In the first case, the east half is *descending*, and pressed *northward*; it goes *between* these two directions, which of necessity elevates the north pole of the axis. The western half conspires; for it is *ascending*, and pressed *southward*, and therefore moves *up obliquely to the south*, thus elevating the north pole.

Fig. 3.

FIG. 3, exhibits a similar experiment with the rotascope. While the west side of the spheroid moves *down*, in the direction of the dotted arrow, the west side of the outer ring, and therefore, of the spheroid, is pushed *southward*, as shown by the single-shaft arrows. Between these two forces, the west side descends obliquely to the south, in the direction of the double-shaft arrow. Hence the north pole of the spheroid is depressed, and the south pole is elevated.

Next, suspend the middle ring of the gyroscope, as in (EXP. 6,) so that when the three rings are in one plane, the axis of the disk is vertical; and fasten the middle and outer rings together by the tightening screw at the top. The parts are now arranged as in the rotascope, the inner ring turning on a horizontal axis, and the outer on a vertical axis, the socket and pointed standard serving instead of the wooden frame.

EXP. 4. Spin the disk,—take up the outer rings by the right and left sides in the two hands, and carry the instrument round yourself in the same direction the disk is revolving; then turn round the opposite way, and instantly the disk will throw itself over with energy, so as to revolve the same way in which you carry the whole. Or, (which amounts to the same thing,) set the instrument on the iron standard, and attempt to turn round the outer rings in a direction the reverse of that in which the disk revolves; and the latter will immediately turn a somerset as before. Here again is a composition of two rotations. The moment the axis is jarred from a vertical position, (as it inevitably will be,) it cannot recover its position, because the resultant of the two motions throws it still farther from the vertical. For example, let the right half of the disk in its rotation approach the experimenter, and suffer a jar, by which it *ascends* ever so little from a horizontal plane, while he presses the right side of the ring, and therefore of the disk, *horizontally from* him. To go between these two directions, the right side must ascend at a larger angle from the horizon, and thus by continued pressure, the angle between the two rotations is diminished, till the disk is completely inverted, and the revolutions coincide. If the disk is *now* jarred, it instantly recovers its position, because the two motions make an acute angle, and the resultant lies between, tending to reduce the angle to nothing. If, in the foregoing experiment, the first disturbance is the other way, and the right side approaches *descending*, the same result will take place,—the disk is inverted, but turns over in the opposite direction.

EXP. 5. Another form of the last experiment is perhaps still more striking. After whirling the disk, take the instrument up by the socket as a handle, and, holding it bottom up, attempt to twirl it by the thumb and finger, one way, and then the other; or, holding it firmly in *any* direction, roll the hand from right to left, and the reverse. In either case, the disk will begin to invert itself the moment you turn the rings in the contrary direction. And by a little management, you can make the inversion take place continually, and in one direction, so that the inner ring has a rapid rotation on the pivots of the outer rings.

In the foregoing experiments, as the axis approaches its position of equilibrium, the rings are felt to move with greater and still greater ease. This is because the two motions *nearly conspire*. When they *exactly agree*, *no* resistance is felt, in attempting to push the ring.

Fig. 4.

With the rotascope, experiment (No. 5,) is best performed by suspending the outer ring from a bundle of parallel cords, about two feet long, as represented in (*Fig.* 4.) Let the cords be twisted up in the direction the disk revolves: then, by the force of torsion, they will begin to untwist. But the motion is suddenly stopped, and the force is exerted, (in connection with the inertia of the disk,) in turning the disk over, after which the cords freely untwist, twist up in the contrary direction, and once more commence untwisting. Again the process is arrested, till the disk takes time to invert itself, and get ready to go the same way. And this operation is repeated several times before the spheroid loses its velocity.

It is to be observed, that in explaining (Exp's. 4 and 5,) the supposition is made, that the disk or spheroid is first *jarred* a little to one side or the other, before the forces tend to invert the axis. And it is strictly true, that if no accidental disturbance throws the axis aside, the disk *can* revolve in one direction, and the rings in exactly the opposite, with entire freedom, except as they will slightly diminish each other's velocities by friction at the pivots. There is no *tendency* to inversion. This is, however, a state of *unstable equilibrium*. Just as a cone, standing on its apex, with its centre of gravity vertically above it, is in a state of unstable equilibrium. It is truly *supported*, and gravity does not in the least tend to make it fall, *until* it is jarred from the vertical; but from that inclination however minute, gravity cannot restore it, but only causes it to deviate the more. The disturbance, however, is inevitable. The cone is sure to fall; and the disk in these experiments is equally sure to be inverted.

Exp. 6. Next remove the middle ring, (Fig. 1,) from the outer and turn it one-fourth round till the screws *d*, *d*, enter sockets in the heads of the screws which connect the middle and inner rings, as shown in (Fig. 5.) Having revolved the disk, and placed its axis nearly horizontal, hang the brass weight on the inner ring, near one end of the axis, as in (Fig. 5.) The whole system now commences revolving horizontally; and if free from all obstruction, would thus revolve perpetually. This result differs from the preceding in this, that the motion *continues*; the disk does not, after a time, reach a position in which the two forces act in the same direction. The reason is quite apparent. The weight itself is carried along as fast as the disk is, and thus always acts at right angles to the rotation of the

Fig. 5.

disk. If, for example, the top of the disk is revolving west, and the weight is on the north end of the axis, it urges the top to the north. Hence the disk takes a motion a little to the north of west; but the weight does not *now* press the top towards the *north*, but towards a point a little to the *east of north*; when the disk turns a little farther, and so on, continually.

It is not difficult to determine what effect *friction* will produce in this experiment. In the position of the axis mentioned above, the friction of the socket on the standard opposes, in a slight degree, the motion of the north pole toward the east. It must, therefore, be regarded as another force, pressing the eastern half of the disk towards the *north*, while by its rotation it is *ascending* vertically. It must, by this joint action, *ascend inclining* northward, *i. e.* the north end of the axis will *descend* slightly under the weight. This is always noticeable, especially after the disk loses some of its velocity: for then the friction becomes relatively a greater force. The effect of friction can be readily neutralized from time to time by a slight pressure against the ring in the direction of its motion; the weight is instantly elevated to its place, and even to any height, by more pressure.

The foregoing experiment is the one which illustrates the precession of equinoxes. The disk represents the equatorial ring of the earth; a horizontal plane through the centre represents the ecliptic, into which the weight tends to tip the disk, as the earth and moon do the earth's equator; the side-screws are the places of equinoxes, or intersections of the ecliptic and equator, which, as the experiment shows, revolve in a direction opposite to that of the earth. In the solar system, there is *no friction*, operating to diminish the inclination of the planes; hence, except the minute oscillations which it undergoes from a higher order of disturbing influences, it remains perpetually the same.

Fig. 6.

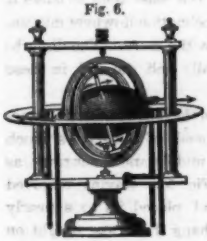

Fig. 6, represents the rotascope, as it is used to illustrate the precession. A wooden ring, representing the plane of the ecliptic, stands around the centre of the frame, and a weight is attached to the inner ring at *w*. The *single* arrows show the direction in which the spheroid revolves; and the *double* arrows indicate that the screws, *l* and *r*. (which are the equinoxes,) move in the opposite direction.

Exp. 7. Take the inner ring and disk from the outer rings, and attach a short bar to the ring at one end of the axis. At the end of this bar is a swivel-hook, for sustaining the ring by a cord, or an indentation for resting it on the pointed standard. Revolve the disk rapidly, and then suspend it by a cord, (Fig. 7,) and take the hand *suddenly* from the opposite side of the ring. The whole will now revolve horizontally about the centre of support, in a direction opposite to that of the upper side of the disk. Though more magical in appearance, this phenomenon is explained like the others. Gravity is not *suspended*, but is every moment exerting its full effect, in combination with the rotation of the disk, to produce the horizontal revolution. Let the unsupported extremity be to the north, and the upper half of the disk revolving west. Gravity tends to move the same particles toward the north in a descending arc. Between these two forces, it tends to go towards the north-west, and thus carry

the support westward; but as that point is fixed, the disk is moved eastward. This effect is permanent, for the same reason as in (Exp. 6.) The angle between the two forces is of necessity always a *right* angle.

Friction slightly opposes this horizontal motion, and the ring therefore gradually falls; but it will rise again, if urged forward a little faster.*

It usually surprises the operator, that, if he supports the edge of the ring on his finger, and lowers it *slowly*, the ring falls with it. The reason is, that so long as his finger *touches* the ring, the *friction* between them is sufficient to prevent the horizontal revolution. Let him move his finger down a little quicker than before, and he will *feel* the ring slipping along horizontally, as if to escape, as soon as he shall permit.

Observe again, that the longer the experiment is continued, the swifter does the revolution become. That results necessarily from the fact that the disk revolves more slowly, the longer it runs. At first, the inertia of the wheel was much the greatest force, and the resultant made a very small angle with it, and the disk therefore changed its direction slowly; but as the velocity of the disk is diminished by friction and resistance of the air, while gravity remains the same, the resultant makes larger angles with the plane of the disk, and it changes its direction more rapidly.

Remove the upper part of the Gyroscope (Fig. 1.) from the standard *s*, and resting the indented ear on the point of this standard remove the finger from the opposite side *horizontally* and suddenly. The ring will remain supported and will revolve around the standard. A weight of half a pound or more may be hung on the outer end if the axis is inclined above a horizontal. The ring will be found to retain any inclination given it. In this, and in every other experiment the disk should be revolved very rapidly.

Fig. 7.

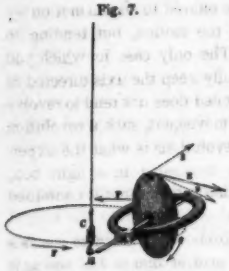

Fig. 7 represents the foregoing experiment as exhibited by the inner ring and spheroid of the rotascope. The particles at *a*, are moving in the line of the arrow *e*, by the *rotation*, and tend toward *b*, by the force of *gravity;* hence they take the intermediate direction, *c*. This tends to throw the swivel, *c h*, to the right, as shown by the arrow, *f;* but if *h* is stationary, the spheroid, *g*, will by the reaction be urged to the left, and circulate around *h* in the direction indicated by the arrows, *f. f.* If the cord is ten or fifteen feet long, and care is taken to place the centre, *g*, directly *under* the upper end of it, the instrument will whirl round in its place, and the cord will describe a conic surface about it,—*h* revolving about *g*, instead of *g* about *h*. The spheroid and ring weigh fifteen pounds, and *g* is more than a foot from the support, *h*.

Exp. 8. Attach a cord to the end of the stem, and suspend the ring and

* If the disk is spun very rapidly, and elevated several degrees above the horizontal position, the friction of the indentation on the standard, instead of depressing the disk, will cause it to rise up towards a vertical, in the same manner as a top. And the explanation in the two cases is the same; but the reason cannot be well given, except by mathematical formulas. Some of the phenomena of the top are more perplexing to the mathematician than those of the gyroscope.

disk, as a pendulum; and after revolving the disk, attempt to swing the pendulum. The lower end will instantly begin to lift itself, and turn round the contrary way from that of the disk. This is the necessary effect of two rotations, one on the axis of the disk, the other on a horizontal line at the top of the string. For example, let the northern half of the disk be revolving to the west; and let the ring be at the northern extreme of its vibration, about to descend. The particles of the northern half, moving *west*, and at the same time by gravity urged *downward*, commence moving *between* these two lines, *i. e.* in a *westerly downward* direction; and thus the lower end of the axis is thrown *upward* and *eastward*, tending to revolve horizontally at some elevation.

The southern half of the disk, revolving *east*, and pressed *upward, relatively to the centre*, (since it is now *lower* than the centre, but at the bottom of the arc of vibration, will be *just as low*,) must tend to *ascend eastward;* thus conspiring with the northern half to force the lower end of the axis to the east.

If the hand holding the pendulum is carried horizontally back and forth, with the ring and disk hanging beneath, no such effect is produced; for there is now no *revolution* about a second axis. The disk is free to preserve the parallelism of its axis, as in (Exp. 1.)

The pendulum experiment may be performed by using the arm instead of a cord. Take the stem attached to the inner ring in the hand, and swing it in the manner of a pendulum, and the writhing motion will be *felt* very plainly, requiring some care lest the stem be wrenched out of the hand. While the arm swings forward, the ring crowds to the left; and while it swings back, to the right,—or else the reverse in both cases,—according to the direction in which the disk is revolved.

Exp. 9. Having the disk and inner ring detached from the other parts of the instrument, whirl the disk, take the ring in the hand, and move it in almost any manner you please, and you will feel resistance offered to such a motion;—that resistance, however, not directly *opposed* to the motion, but tending to turn the instrument into some *oblique* position. The only case in which you will *not* perceive such an effect, is when you carefully keep the axis directed to the same point of compass. For then the force applied does not tend to revolve the disk on another axis; whereas, in every other movement, such a revolution is attempted, and the resultant effect of the two revolutions is what the experimenter perceives. If a whirling disk should be concealed in a light box, every one who should handle the box, would be disposed to think it contained a living and powerful animal, struggling to get free.

The Gyroscope is made in a variety of simpler forms. One of them consists of the inner ring and disk to which is attached an arm at one end of the axis as in (Fig. 7.) An indentation where the arm joins the ring allows the whole to be placed on the standard, when a weight may be placed on the arm at sufficient distance to balance the ring. If the disk is now revolved, the whole instrument remains stationary; but if the weight be moved nearer the standard a revolution takes place;—if it is moved further from the standard the revolution will be in the opposite direction.

ENGLAND.

MISS BURDETT COUTTS' PRIZES FOR TEACHING COMMON THINGS TO GIRLS.—The efforts to give prominence to instruction in common things—a practical knowledge of the duties and phenomena of every day life—commenced by Lord Ashburton and described at length in Volume 1, page 629 of this Journal, has received a new impulse by a prize scheme for female teachers and for girls instituted by Miss Burdett Coutts. The three sets of prizes amount to £50, and were offered to school-mistresses in schools connected with the church of England who have pupil-teachers apprenticed to them, under government inspection; to the pupils in the Whitelands Training Institute and to female pupil teachers in the county of Middlesex. We do not propose to give all the details of the scheme, but we make the following extracts from a beautifully printed volume of 89 pages [entitled,—*A summary account of prizes for common things offered and awarded by Miss Burdett Coutt's at the Whitelands Training Institute*, 1855–56. London: Hatchard,"] which we have just received from London, to show the practical character of the plan.

SUBJECTS for instruction in common things to schools for girls upon which papers may be prepared or lessons given, in competition for the prizes offered.

1. FOOD: Including the prices of different kinds of meat, vegetables, groceries; the use and particular nourishing qualities of each; also all that relates to the preparation of food for cooking, and its economical use.

II. CLOTHES: Including the use and value of the materials of which the various articles of clothing in common use are made; also what relates to the cutting-out and making of clothes, and to the best ways of mending and altering them, and keeping them in an orderly condition, so that they may always be found when wanted, and always be in a wholesome and comfortable state.

III. HOUSEHOLD ARRANGEMENTS GENERALLY: The best means of preserving health by purifying the air in close situations, especially in times of sickness or in case infectious disease; and the best means of keeping rooms at a proper temperature.

IV. DUTIES OF SERVANTS: Showing what the cook ought to know and do; what the laundrymaid; also what instructions should be given to servants in the country, especially in regard to their treatment of animals; how they can best manage and dispose of their wages; what moral qualities and personal habits are likely to render them most useful and happy.

V. MANAGEMENT OF CHILDREN: What instructions should be given to young persons going out as nurserymaids as to to the responsibilities they incur when they take charge of a child; what advice should be given to girls likely to be employed in household matters at home, or in the management of the younger members of their family.

VI. MANAGEMENT OF THE SICK: Including the keeping a sick-room in a proper condition, the preparation of food for the sick, the management of sick children, use of simple medicines; also on the common remedies which may be applied in case of sudden accidents, especially where presence of mind may save life.

QUESTIONS answered by 14 school-mistresses, 45 pupils of the Whiteland Normal School for female teachers, and 24 pupil teachers—at Whitelands on the 7th of July, 1855.

1. Describe the school now under your charge, stating whether it is in the town or country. What is the general condition of the children and parents? Whether common things have been taught in your school, and how you think such subjects can best be taught?

2. What common things can most suitably be taught to children who get their living in a town, or to those who get their living in the country?

3. Why is economy in the use of all articles a duty in every condition of life? Do you remember any passage in Holy Scripture which bear upon this subject?

4. If at any time the supply of water should fall short, or if it could be obtained only with great difficulty, what could poor people do to promote cleanliness and health?

5. In the case of a family of an artisan or a laborer in your own neighborhood, consisting of a man and his wife, and six children between the ages of five and sixteen, state the probable amount of their weekly earnings; and say how it could be laid out to the most advantage, specifying the weekly expenditure, and the amount that should be laid by for rent, illness or any emergency. Would you advise the wife to do anything by way of adding to the weekly earnings? If so, what? Give your reason.

6. Give the notes of a lesson on any subject, historical or geographical, and show how you would introduce into such a lesson the mention of common things. Show also what moral and religious reflections may be made upon these subjects.

7. Quote some of the stories which you are in the habit of using, or which your teacher has used, by way of familiar illustration, when talking to children about common things.

8. Give an account of the different grains used for making bread; and give a good receipt for making a 4 lb. loaf, naming the weight of flour, &c.

9. State what you know as to the comparative waste of boiled, roast, fried, and baked meats; and the different advantages of each mode of cooking.

10. What opportunities are afforded you in the school-room of teaching children that tight clothes are neither economical or healthy, or of inculcating habits of cleanliness and order? and how would you improve these opportunities?

11. What are the various reasons for teaching children the duties of kindness and consideration towards animals?

12. In the case of young girls going into service, or about to be placed in charge of younger children, what should you have to say on the subject of presence of mind; or of the duty of never deceiving children, or pacifying them with false promises?

13. In the case of sudden emergencies—such as a child fainting, clothes catching fire, a severe scald or cut—what habits of mind would you cultivate? What measures should you take at the moment, and how would you turn such an event to good account?

14. What simple remedies would you use in the case of a cold, cough, or sore throat?

15. Suppose an infectious complaint were to break out in a school, and the school not to be broken up, what would be the best measures to adopt under the circumstances?

16. Give an account of what you consider the necessary qualifications of a cook, laundrymaid, housemaid, or nurse. State the usual wages of such a servant; what articles of dress would be most suitable for her particular occupation; and how much you think she ought to save. If you were required to select a nursery-maid for a lady's family, what questions would you put to the children whom you thought most likely to suit for the purpose? What moral qualities would you deem most essential?

17. What is the present price of tea, coffee and sugar? And state how much of each is sufficient allowance per week for one person.

18. Enumerate the different darning-stitches. For what articles should they severally be used? Give full directions for making a man's shirt, a housemaid's apron, and knitting a stocking.

19. If you were requested to provide a sufficient and suitable outfit for a schoolmistress, what materials would you recommend, and what would be the probable quantity required for each article, and the price per yard? What articles of clothing would you recommend for a housemaid in a gentleman's family? What are the objections to cheap and showy articles?

20. What are the advantages and disadvantages arising from the English and French methods of clear-starching and getting-up of linen? Give Twelvetrees' receipt for washing; and state whether or not you think the clothes would be more injured by this process than by the old method of rubbing.

It should be mentioned that Miss Coutt's took a personal interest in selecting the subjects, witnessing the lessons, and examining the papers submitted—and

we should be glad to publish entire the letter in which she speaks of the results of her observations, because it shows an intelligent apprehension of the objects as well as the limits of industrial training in popular schools, and a kindly sympathy with the difficulties and trials of the poor. The following allusion to a friend, on whom she had relied for coöperation in carrying out her scheme, and whose sudden death suspended its execution for a time, bespeaks at once a grateful heart, and teaches a beautiful lesson—"the dear friend who has helped me throughout this plan, and to whom I am indebted, not only for what information I may possess, but for my first interest in these subjects, and for the first direction of my mind to the observation of the multitude of objects of usefulness and beauty with which a merciful Father has surrounded us. From her I first learnt that happiness and comfort are the exclusive possession of no condition in life, but are attainable by most people; proceeding out of common things and simple pleasures, and seldom indeed, if ever, to be wholly missed by those who walk carefully and reverently in the footsteps of our Great Example, and who cherish a humble sympathy with all the work He has intrusted to the hearts and hands of His children."

The "Summary account" presents a selection of the best specimens of essays and papers written by the candidates on the occasion, together with hints on the managements of wages, the best manner of buying and cooking food, the weekly expenses of a laborers family, the treatment of burns, scalds, cuts, fainting, colds, sore throat &c. The following plan for instruction in needlework is pursued in the school which received the prize of £4, for the best method of teaching this branch of industrial training.

PLAN OF NEEDLEWORK AT ST. STEPHEN'S SCHOOL, WESTMINSTER.

The school is divided into ten classes, each under the care of a separate teacher, either a pupil-teacher or monitor.

The children take their places in the classes entirely with reference to their ability as good and neat workers, their morning lesson-class having nothing to do with that in the afternoon, which is devoted solely to needlework.

In the case of two girls being deserving of promotion, a preference would be given to the one who was in the higher class of a morning; the object being to connect, rather than separate, the morning ability in study with the afternoon neatness and proficiency in the use of the needle.

The teachers also take their places in the classes which they superintend entirely by their ability and proficiency in needlework. It sometimes happens that a teacher high in the school for morning studies will have to be placed in a lower class for needlework; and another, whose morning abilities are but moderate, will be equal to the duties of an upper class in the afternoon's needlework; although, as a general rule, I have observed that a painstaking teacher in lessons, and especially in writing, is almost invariably a good needlewoman. We had some difficulty at first in carrying out the arrangements, as the school had proceeded for three years on a different system; but by perseverance the difficulties have disappeared.

One evening weekly is devoted to needlework by the mistresses, pupil-teachers, and monitors. The work of each class is inspected, difficult work fixed, and new work cut out by the teachers; the pupil-teachers who are nearest the end of their apprenticeship taking the most difficult work. Every teacher is expected to make a shirt during her apprenticeship, which has been cut out by herself.

The girls in the first class are taught to cut out and make various articles of clothing. The evening work-lesson often lasts three hours.

Competitive Examination. At a recent meeting of the Hants and Wilts Adult Education Society, addresses were made by Dr. Dawes, the Dean of Hereford, by the Bishop of Winchester, Mr. Cole, Inspector General of Provincial Schools of Art, Mr. E. Chadwick, and others. Prizes were given after a com-

petitive examination. The gainers are placed on a list of persons recommended by the Society of Arts, for promotion in the civil service of the government. On the subject of the system of open competitive examination, Mr. Chadwick made the following remarks:

Sir Charles Trevelyan, and Sir Stafford Northcote, Mr. John Wood, the Chairman of the Board of Inland Revenue; Mr. Bromley, of the Admiralty; Mr. John Mill, of the East India Company's service, who advocated open public and competitive examinations as a necessary test for admission into the public service, had solely in view what they were solely to consider—namely, the good of that service; but they might well have advocated the abolition of patronage on high and distinct grounds, as being necessary for the morality, for the repose, the continued respectability, and stability of families. They might have advocated the principle of open competition as a necessary aid to educational institutions of every class, and as a test and security to the public in the matter of private education. Among the other services rendered to education by the steps taken on the competitive examinations in progress, was the quantity of bad education which it had brought to light, and put in course of correction. Few people were aware of the differences in the effects of different courses of education, and how much mischievous misdirection of youth might go on for generations unnoticed and unchecked. In the years 1851 to 1854 inclusive, 437 gentlemen were examined for direct commissions in the Indian army; of this number 132 failed in English, and 234 in arithmetic. What did these figures denote socially but waste of vast sums of money spent in obtaining bad educations, waste of time, parents deceived, their hopes marred, and the fortunes of families jeopardized? And what did those figures not denote politically,—of the preparations for commands over the lives and well-being of others? He submitted that, as a means of testing good and bad education for persons of every class and degree, for the use of private persons and the general public, as well as for the purification of constituences and the House of Commons, and for the efficiency of the public service, the full extension and development of the principle of open public competitive examinations was of great national importance. In his allusions to the official proceedings in relation to examinations for the public service, he would guard himself from implying that those proceedings had been satisfactory. On the contrary, what was satisfactory was to see the indications of the working of a good principle made manifest in despite of obstructions and latent and powerful hostilities. He would now warn them against the delusive character of the packed competitions of nominated candidates, and urge the necessity of increased exertions on the part of all who are concerned in education throughout the country to prevent the evasion of the principle of open competition, and to insure the great educational and social results already indicated.

Improvement of the Condition of the Agricultural Laborer. The Laborer's Friend for July, 1856, contains an account of the ninth annual meeting of the Royal Association, established by Prince Albert, for raising the social condition of the laboring classes within the parish adjoining Windsor Castle, held on the 19th of June. There was an exhibition of flowers, vegetables, cottagers handicraft, specimens and models of tenements, barns, domestic and horticultural implements, home-made bread, &c., with an entertainment of good substantial joints of beef, mutton, hams, and plentiful supply of plum-pudding to over two hundred exhibitions. The following list of prizes were awarded by his royal highness.

Class 1. To the laborer, or artisan, or his wife, who has brought up a family in honest, sober, and industrious habits, and without parish relief, except in cases of sickness—two families received 3*l.* each; ten, 2*l.* each; one, 1*l.* 10*s.*; and one, 1*l.*

Class 2. To the widow of a laborer, or artisan, who has brought up her family in honest, sober, and industrious habits, whether with or without parochial relief—one person received 3*l.*; five, 2*l.* each; one, 1*l.* 10*s.*; and one, 1*l.*

Class 3. To families distinguished for cleanliness and tidiness in house and person—fifteen received 20*s.* each; and seven, 15*s.* each.

Class 3. (b.) To the best cultivators of gardens or allotments, being also persons of honest, sober, and good moral character—two received 20*s.* each; and three, 15*s.* each.

Class 4. To well-conducted servants, or laborers (male or female,) who have lived for the longest period of service in the same situation—three received 3*l.* each; eighteen, 2*l.* each; and nine, 1*l.* 10*s.* each.

Class 5. To young persons (male or female) who have kept their first place of service for the longest period, not less than three years—twelve received 1*l.* each.

Vegetables, needlework, and handicraft—upwards of one hundred persons were awarded sums varying from 20*s.* to 10*s.* each.

The association arose from a desire expressed by His Royal Highness to bestow some mark of favor on cottagers in and around Windsor who were diligent in keeping their houses tidy. The design eventually embraced every kind of industrial occupation. Neat cottages, well cultivated gardens or allotments, the bringing up of families honestly, long service of laborers, artisans, and domestics, especially of young persons in their first situations, are the subjects sought out and rewarded. Special notice is taken whether children have been daily sent to school, sick clubs, savings' banks, or other provident institutions paid into, or assistance given to poorer relatives.

The association also extends its care, as occasion arises, to any question of a practical kind which may be brought before it. Thus it has taken an active part in the extension of the allotment system; from a conviction of its extreme importance to the health, comfort, and moral improvement of the laborer. There are now sixty-two allotment tenants in connexion with the association—the allotment grounds being self-supporting, though some expense was incurred in forming them. The committee has also taken up the question of model or improved dwelling-houses, and with signal success. The Royal Society also provides for better domestic accommodation for the industrial classes, and has succeeded in less than three years in erecting fifty houses, all occupied, and paying five per cent. interest to the share holders. No less a sum than 1,400*l.* has been administered during the first six years of the existence of the association, and out of this sum above 1000*l.* distributed in rewards and prizes to seven hundred persons.

Such an association as this ranks with the educational agencies of the country.

The Manchester Mechanic's Institution held a meeting in honor of Lord Palmerston's visit to that city—on which occasion his Lordship made an address of which we give a large portion.

The culture of intellect should be as universal as its endowment. The intellectual qualities as well as the moral feelings of our nature are scattered broadcast over the face of the earth. We find them everywhere, in the lowest classes as in the highest. Their development depends on the opportunities which are offered for their culture, and it is to these institutions that we are indebted for the faculties which are so advantageously presented. In this country, fortunately, the road to wealth and to honors is open to all. Some of those among us who have filled the most distinguished situations have sprung from the humblest position, and have raised themselves by their talent and good conduct. The great merit of these institutions is that, whereas the laboring classes are unable by their own unaided exertions to obtain access to those books and those means of instruction which are necessary for the development of their intellects, and whereas their hours of leisure are so few as to afford them but little opportunity for mental culture, you open to them the whole range of

the treasure of science, and, whatever line their genius may be best adapted to follow, you furnish them with the means of cultivating their faculties and thus increase their knowledge, and through their knowledge, their happiness. Man is endowed with a double nature—the moral and the intellectual. Both contribute to his pleasure and happiness; his moral enjoyments are independent of external support, they begin with his home, and constitute his domestic attachments; extending a little further they assume the character of friendship, in a wider range they become love of country and patriotism, and with a still further development they take the shape of benevolence and philanthropy. Those pleasures are within the reach of every man, and no man needs assistance to enable him to enjoy that happiness which consists in the exercise of his affections, but his intellectual qualities require assistance for their development. It is true that knowledge is power, but assuredly those who afford the laboring classes the means of acquiring knowledge, contribute not merely to their advancement in life, but also to their innocent and laudable enjoyments.

A little learning should not be despised. We have often heard quoted from the words of one of our great poets, that

> "A little learning is a dangerous thing,
> Drink deep or taste not the Pierian spring."

I hold that that is a mistake and much error has it produced. A little knowledge is better than no knowledge at all. The more knowledge a man has the better, but if his time and the means at his disposal do not permit of his acquiring deep and accurate knowledge, let him have as much as he can, and, depend upon it, he will be all the better for it; and, although he may not be able to drink deeply of that spring, if his lips have once tasted of it he will go back to the same delicious waters whenever he has an opportunity, and his draughts, be they great or small, will refresh his fancy, invigorate his intellect, raise him in the scale of civilization, contribute to his individual happiness, and make him a more useful and honorable member of society. The first object of instruction ought to be that which we have been told is the meaning of education—to teach a man how to live, his attention ought first to be directed to that pursuit to which he means to devote himself through life; there, indeed, he should drink deeply, and there he should endeavor to perfect his knowledge, but should he on that account not endeavor to enlarge his mind, to extend his views, and obtain information on other matters not connected with the business of his profession? Then we may be told that we will make him a mere smatterer in knowledge, to which I reply that it is better for a man to be a smatterer than to be ignorant and uninstructed. There are many lines of information which it is most essential for a working man to pursue, but from which, were it not for the institutions such as this, he would be hopelessly excluded. In the first place there are certain laws of nature of which some regulate the trade in which he is employed, some govern and control his industry, and on others depend the well-being of his existence, and yet those laws are not to be known by the simple-minded man. They are the result of deep reflection and long experience, and can only be ascertained by consulting the works of those who have minutely investigated and carefully explained them. If a man were to enter a town of some foreign country, where there were laws the violation of which was attended with pain, imprisonment, or, it may be with death, would he not be deemed mad if he did not take the earliest opportunity to make himself acquainted with those enactments, so that he might avoid the penalties attached to their infringement? Yet there are laws of nature applicable to the daily pursuits of men which, if not attended to, inflict bodily pain in the form of disease, imprisonment in the shape of the loss of corporeal powers, and even death, through the neglect of those sanitary conditions on which life depends. How important, then, it is that the working classes should be made aware of those natural laws and regulations which are indispensable to their own welfare and to that of their families. And why should not a life of labor be now and then cheered by the cultivation of the imaginative faculties? Why should not a day of fatigue be relieved in the evening by the occasional indulgence in the pleasure of poetry, and in that delightful enjoyment which the best works of fiction impart? Such occasional recreations, though they ought not to be the sole object of reading, are nevertheless useful, by giving buoyancy to the intellect and inspiring the mind with noble sentiments and

feelings which deserve to be cultivated. You cannot expect that a working man having but a small portion of time to devote to pursuits of this description should become an historian, but why should he not, by the aid of books well adapted for the purpose, gain a general knowledge of the history of this country, learn something of the rise, decay, and fall of empires, and judge of the causes which contribute to national prosperity and to national ruin? Your institution furnishes the means whereby the working man may inform himself on these great matters, and obtain clear ideas on many other subjects of importance; why should he not have some knowledge of the constitution of the universe? I may be asked whether I would make him an astronomer or expect him to calculate eclipses, describe the orbits of comets, or examine the course of the planets. By no means; but of all sciences the mechanism of the universe is that of which a man who has little leisure at his disposal may most easily obtain an insight by the knowledge of those facts which are the result of deep study and careful calculation. An ignorant man believes that his country is the only one in the world, that this planet is the only great portion of creation, that the sun is placed in the firmament merely to warm him, the moon to light him home, and the stars to amuse him on the journey, but when he is led into the secrets of the vast universe, that contemplation of which, fills the mind with awe, his views become liberal and enlightened, his mind is raised above the ordinary groveling ideas of life, and he finds himself a superior being to what he had been before. It is clear, therefore, that institutions which promote such desirable objects are eminently deserving of the support of the people; they are peculiarly congenial to the habits of the British nation, and they are singularly in accordance with the spirit of the British constitution.

Value of Mechanics and similar Institutions. They tend to bring together the different classes of society, combining them in the bonds of good fellowship allaying their jealousies, mitigating their asperities and causing them to work together in harmonious action for the general benefit of the commonwealth. I beg to congratulate the people of Manchester, therefore, on the noble institution of which this hall is the creation. I felicitate them on having led the way for other institutions of a similar nature, and I augur well of a system which is supported by so vast and influential an assemblage as I have now the honor to address. Rely upon it that, much as the fame and reputation of this great city may depend on its commercial prosperity, its accumulated wealth, and its vast mercantile intercourse with the remotest regions of the earth, there is nothing that will more conduce to your honor,—nothing on which you will reflect with greater satisfaction,—nothing by which you will be greater contributors to the happiness of your country, than the efforts you are now making to educate those who of themselves have not the means of acquiring that knowledge which it is fitting that they should possess. Be assured that as long as you go on in that course you will have no reason to regret any time or trouble it may entail on you. You will have the satisfaction of feeling that you are raising in the social scale those who are dependent upon you, and you will be rewarded not only by the grateful emotions which your benefits will evoke, but by the knowledge that you will see rising annually under your parental culture a race of men more and more intelligent, more and more deserving of the fostering care that you bestow upon them, and conducing more and more to the honor of their country, and to the power and prosperity of the land in which they live.

MINUTES OF THE COMMITTEE OF COUNCIL ON EDUCATION FOR 1856.—Since the action of Parliament at the last session, it is evident that the Education Department with its enlarged duties and means, is the nearest approach which will be made to a system of Public Instruction for several years to come. We shall therefore give in an early number a summary of the minutes of the Committee of Council on Education, under which the parliamentary grants are to be administered. These grants from 1839 to Dec. 1855 amount to £2,000,000 [or over $10,000,000] and induced an expenditure of over $25,000,000. Thus the grant of £580,381 in aid of building, &c., houses for elementary school led to the raising of £1,512,231; and of £147,426 for Normal schools, to the sum of £350,000.

DEPARTMENT OF SCIENCE AND ART.—The Report for 1856 of this new organization under the Board of Trade in Great Britain has recently appeared. Its divisions are as follows: I. Metropolitan Institutions in London, Dublin and Edinburgh. II. Aid to schools connected with the department having reference to secondary instruction. III. Aid to schools *not* connected with *the department* having reference to primary instruction. IV. Aid to schools by formation and distribution of examples and illustrations. V. Public services connected with the department.

I. The metropolitan institutions include A. the *Geological Surveys* (1700 sq. m. in Great Britain and 1000 sq. m. in Ireland surveyed during the year.) B. the *Mining Record Office* (219 plans and sections of mines added the past year.) C. the *Mining School*, (394 lectures, 70 students; 4 courses of lectures to working-men, 600 in attendance on each; chemical laboratory, 100 pupils, metallurgical laboratory, 27 pupils.) D. *The Museum of Practical Geology* (Visitors 2200 per month.) E. *The Training School of Art and the Metropolitan District Schools*, London, (central school 397 pupils, district schools, average attendance 466, 33 parochial schools 1730 pupils.) F. *Female Art School*, (144 scholars.) G. *Museum of Ornamental Art, London*, (Increased by purchases from the Bernal collection and the French exhibition; visitors 78,427.) circulating Museum (400 specimens of art sent already to 4 large towns, 55,701 visitors.) H. *Library of Art* (500 vols. added, daily visitors average 30.) I. *Museum of Irish Industry, Dublin*, (25,008 visitors, 4 full courses of lectures, 1064 in attendance.) K. *Royal Dublin Society*, (Museum, Zoological Gardens, Library &c.) L. *Lecture* Committee at Dublin, (4 courses, 827 in attendance on all.) M. *Normal Lace School Dublin* (17 scholars.) N. *Industrial and Nat. Hist. Museum, Edinburg*, 100,947 visitors; increase from 833 of the year before.

II. *Secondary Schools of Art.* (No. of schools 55, exclusive of 9 in London, above mentioned, 108,60 pupils.) *Secondary Schools of Science*, (18 schools, 10,007 pupils,) including 6 Navigation Schools and 3 Trade Schools.

III. *Aid to Primary Schools.* 18,988 children have been taught drawing by masters sent out by the department, an increase of 80 per cent. over previous year.

IV. *Apparatus* and examples have been furnished to 192 schools at an expense of £1,007. (Additions—*Mechanics*, by Prof. Willis. *Botany*, Professor Henslow. *Astronomy*, Dr. Drew. *Working Models of Mechanism*, Mr. Riggs. *Geology*, Mr. Jukes, Mr. Hawkins, and Mr. Sopwith.)

V. Public services of the Department. *Registration of Designs.* (4,391 entries the past year.) *French International Exhibition* was visited by masters of all the provincial schools of Art, and by forty of the best students, at the expense of the department.

The total expenditure for 1855–6, in all these most important branches of the public service included under the department of Science and Art, has been £81,384, 17s. 8¼d.

THE NIGHTINGALE FUND.—The total subscribed up to November, 1856, to constitute a fund intended as a record of national gratitude to Florence Nightingale for her valuable services rendered to the sick and wounded of the British forces during the Crimean war, and raised to enable her to establish an *Institution for the training, sustenance and protection of nurses and hospitable attendants* already exceeds £30,000. This includes a contribution of £1,872 from M. & Madame Goldschmidt Lind.

SCOTLAND.

During the last session of Parliament four bills were introduced contemplating a revision of the system of Parochial Schools of Scotland. Two were withdrawn by their authors, and the other two passed the House of Commons, but were thrown out by the Peers.

We have received from Mr. S. S. Laurie, Secretary of the Education Committee, of the Church of Scotland, the *Report of the General Assembly and Parochial schools in Scotland for* 1856, (8mo Edinb. 197 pp.) It gives full information in respect to the schools directed by the General Assembly of the Presbyterian Church and the statistics of the Parochial Schools as examined by the Presbyteries for 1855. The number of scholars attending all their schools, was upwards of 19,000. Nearly a thousand more were in attendance at their Sunday Schools. The number of schools on the first scheme (in the Highlands) is 120, on the second (Lowlands) 45, in addition to 13 female schools, in all 178 schools.

Average income of each of the 116 teachers on the first scheme was £50 14s 6d; of each of the 42 teachers on the second scheme was £56 16s 6d, and of each of 12 female teachers £31, 16s, 8d.

Two *Normal Schools* are under the direction of the Assembly's committee, at Edinburgh and Glasgow. 180 scholars are in attendance upon them. A third Normal school is proposed for females. The Normal Schools receive aid from the Committee of Council on Education.

Agricultural Instruction is given in seven schools "the crops being cultivated in such a way as to exemplify the book lessons and to afford to some extent, at least an example to the neighboring peasantry."

The whole *income* of the Assembly's Committee from various sources for the year is £8,549, 10s, 4d; the *expenditure*, £9,633, 13s, 1d.

Schools examined by the Presbyteries.—From tables appended to the Report, there were 949 Parochial Schools examined with 74,233 scholars; 51 Burgh Schools; 90 Sessional Schools; 126 Assembly Schools; 155 Society Schools; 465 Adventure Schools; and 586 other schools; with an aggregate of 107,276 scholars, or a total of 2,490 schools, and 181,509 scholars.

IRELAND.

THE TWENTY-FIRST REPORT of the Commissioners of National Education in Ireland for 1854, with appendixes, makes a document of over 800 pages and exhibits the successful working of a system of national education on a large scale in which *combined* literary and moral, and *seperate* religious instruction is given to children of all persuasions without interfering with the peculiar religious tenets of any description of christian pupils. At the close of the year 1854, there were 5,178 schools with 556,551 scholars, under 5,128 teachers. The expenditures by the Commissioners for the year amounted to £221, 591, (over $1,000,000,) in aid of local and parental payments.

The following items for 1854, exhibit the comprehensive and liberal plan on which the parliamentary grants are administered.

For the Central Normal School and Model Schools in Dublin, . .	£11,579.
Ten District Model Schools, about	13,000
Albert National Agricultural School, Model Farm, Garden and Industrial School at Glasnevin (near Dublin,)	15,558
Twenty-five District Model Agricultural Schools, (about)	8,000
Salaries for teachers in ordinary National Schools, ...	87,119
" to teachers of Plain Sewing &c., ...	2,351
" " of Embroidery &c., ...	67
" " of Evening Schools, ...	232
" " Work-house Schools (not agricultural,) . . .	349
" " for Agricultural instruction in ordinary schools, .	168
Premiums to teachers for maintaining habits of cleanliness, . .	933
Inspection—6 Head Inspectors, 20 District Inspectors, Sub Inspectors,	16,818
Book Department, ...	29,794
Official establishment at Dublin, ...	12,126

FRANCE.

The following summary of the Budget for 1856, will exhibit at a glance, the wide range of institutions and objects embraced in the French scheme of public Instruction, as well as the liberality of the government to this department.

BUDGET OF PUBLIC INSTRUCTION FOR 1856.

I. EXPENSES CHARGEABLE TO THE GENERAL FUNDS OF THE STATE.

CENTRAL ADMINISTRATION.

Chap. 1. *Personnel*, (Minister, Employés, &c.,).....472,250 fr.
1. Indemnities to certain employés and assistants,..... 6,100 fr.
2. *Matériel*, (Expenses of offices, &c.,) .....100,000 fr.

PUBLIC INSTRUCTION.

3. General Inspectors of Public Instruction,.....232,000
4. General services of Public Instruction,.....184,000
5. Superior Normal School,.....178,610
6. Adminstration of Academies,.....817,600

SUPERIOR INSTRUCTION.

7. Subventions, ...800,000

SECONDARY INSTRUCTION.

8. General Expenses,..... 51,000
9. Lyceums and Colleges,.....1,400,000
10. Scholarships, (*bourses*,) and reduction of fees,.....710,950

PRIMARY INSTRUCTION.

11. Inspection of primary schools,.....723,000
12. Expenses of chargeable to the general fund of the State, 4,970,000

SCIENCES AND LETTERS.

13. Institute of France,.....586,300
14. Imperial College of France,.....180,000
15. Museum of Natural History, (Garden of Slants,).....479,780
16. Astronomical establishments,.....136,760
17. Imperial Library, (ordinary expenses, course in archæology,) 304,800
18. do. (extra. exp. preparation of catalogue,).....50,000
19. Public Libraries,.....$200,400
20. Imperial Academy of Medicine,..... 43,700
21. School of Records,..... 35,400
22. School of living oriental languages,..... 55,800
23. Subscriptions,.....120,000
24. Relief and encouragement to savants and men of letters,..180,000
25. Learned Societies, subventions, &c..... 30,000
26. Scientific voyages and expeditions; French school at Athens, 65,000
27. Publication of the *Documents inedits de l' histoire de France*,..... 120,000
28. Public instruction in Algiers.....184,200
29. Subscription to the City of Rennes for the construction of an edifice for the service of public instruction,..... 33,750
30. *Dèpenses des exercises clos*,.....*Memoire.*

13,451,400 fr.

II. EXPENSES CHARGED TO SPECIAL RESOURCES.

PRIMARY INSTRUCTION.

31. Expenses chargeable to funds of the departments,	5,325,000
" " the special proceeds of primary Normal schools,	400,000
	5,725,000

SUMMARY.

I. Expenses chargeable to the general funds of the State,	13,451,400
II. " " to special resources,	5,725,000
TOTAL,	19,176,400 fr.

The above budget does not include the appropriations for the following departments in aid of public educational institutions which do not depend upon the Ministry of Public Instruction.

Ministry of Worship.—Diocesan Seminaries; Normal Ecclesiastical School (*des carmes,*) at Paris.

Ministry of the Interior.—Conservatorie of Arts and Trades; Conservatoire of Music and Declamation; Imperial School of the Fine Arts.

Ministry of Agriculture, Commerce and Public Works.—School of Roads and Bridges; School of Mines; School of Miners at St. Etienne; School of Master Miners at Alais; Schools of Agriculture; Farm Schools; Schools of Art and Trades at Châlons, Angers, and Aix; Central School of Arts and Manufactures, at Paris; Veterinary Schools at Alfort, Lyon, and Toulouse.

Ministry of War.—Polytechnic School; Military School at St. Cyr; Military School of Medicine and Pharmacy; School of Artillery and Engineering, at Metz; Military Prytaneum.

Ministry of the Marine.—Naval School at Brest; Marine Schools of Surgery at Rochefort and Toulon; Schools of Hydrographie; Lyceum of St. Denis; Primary Instruction in the colonies, except in Algiers.

Ministry of Finance.—School of Forestry at Nancy; Grand Chancellery of the Legion of Honor; Houses of Education at St. Denis, Ecouen and St. Germain.

SPECIAL REWARDS TO SCHOOL TEACHERS.—The *Moniteur* contains an Imperial Decree, by which 465 school teachers who distinguished themselves by their self-sacrifice and humanity, during the ravages of the cholera, receive testimonials of the governments approbation; six bear the title "Academy Officers;" 73 receive a silver medal; 82 a copper medal; and 294 honorary mention.

FRENCH ARABIC SCHOOLS IN AFRICA.

The *Moniteur* of March 26th, published a report upon the French Arabic schools, which the government have maintained in Algiers for some years past, in the hope of having in time, native officials. It is proposed to establish at an early day an Arabic French Lyceum, or College.

The following statistics are given in the report:

In 1848, there were 115 elementary schools for Europeans, attended by 3,858 boys, and 4,250 girls. This number has been greatly increased, so that there are now 178 boys schools; 119 girls schools; 67 primary schools, with 10,672 boys, and 9,896 girls in attendance upon them.

DETERIORATING INFLUENCE OF PRIVATE EDUCATION.

The Catholic Bishop of Orleans, Monseigneur Dupanloup, in a recent publication on Private Education, holds the following language in reference to the practice of rich and noble families employing private tutors:—

"Perhaps one of the causes of the weakening of the great French families, and want of political influence, is the private education they have given their children. Private life is excellent for repose, but it does not form men for the management of business and of men. It is a refuge, and not a novitiate. So private education weakens children which it separates from society, and renders them incapable of having power over themselves, and of sustaining the shock of men. 'A government which wished to rid itself of the great families, and root them out of the country, need demand nothing more than that, through respect for themselves, they bring up their children at home, alone, far from companions of their age, in the narrow horizon of private education and the private tutor. The great European families have followed for too long a period this fatal system. How much has not France suffered from it! How much does she not still suffer at this very hour! What shall I say about Italy and Spain? When I saw recently, in the great Italian cities, the young Neapolitan, Tuscan, or Roman princes walking in the Corso or Toledo, under the charge of those little Italian *abbés*, professional tutors, always before or behind the age, but never in accordance with it, I said sadly to myself—Behold, indeed, the image of this false education! Is it thus those great families, and those nations, so long holy and illustrious, will arise again?'"

HOLLAND

REVISION OF SYSTEM OF PUBLIC INSTRUCTION. The King of Holland in his Address on opening the annual session of the States General, at the Hague, on Monday, Sept. 15th, 1856, then made the following reference to a revision of the system of Public Instruction.

Bills for regulating the three branches of public instruction, will be offered to you at one and the same time. In that way the necessary relation between parts that should form one whole, will be better able to be preserved. To preserve inviolability to all that belongs to the domain of conscience is one of the traditional cares of my ancestors. Moved by that feeling we have sought the means of meeting as far as possible the numerous scruples raised by the bill for primary instruction. I desire to insure to the Netherlands, with your assistance, school institutions, in which the religious character of the nation, formed and developed by ages of Christianity, may be respected, and by which the demands of knowledge and the principal of national unity may both be sanctioned.

DENMARK.

NEW SCHOOL LAW. We have received from Charles Fögh, Esq., of Copenhagen the regulations established by the king, in pursuance of an order of the Diet, for the government of the Primary schools in cities and rural districts of that kingdom. With this law and material before furnished by the same correspondent, we shall hereafter give an outline of the system of public instruction in Denmark.

NORWAY.

We have received from Mr. Hartvig Nissen, Educational Councilor for Norway, an account of the system of public instruction in that country, which we shall soon place before our readers.

We hear from Mr. C. L. Brace, who has recently been making a journey in Scandanvia most favorable accounts of the progress of educational improvement. The *Storthing*, or Parliament, and Crown Prince who is Viceroy of Norway, exhibit deep interest in the popular schools. The itinerating or circulating schools are giving place to permanent schools in the rural districts, and technical schools, or schools for drawing, modeling and mechanical instruction are being established in all villages and towns for laboring people, who attend in the evening.

SWEDEN.

We have received from P. A. Siljeström, Ph. D., of Stockholm, a package of documents relating to the educational movements of Sweden, together with a volume on the "*Educational Institutions of the United States*," the results of a visit to this country in 1849–50 on a special mission from the Swedish Minister of Public Instruction to inquire into the actual working of our school system. Dr. Siljeström is one of the most enlightened educators of Europe, and his labors are already felt in the re-organization of the schools of Stockholm, and the movements of the Swedish Association of Teachers, which was formed through his influence. We shall review his volume on the Educational Institutions of this country in a subsequent number,—and notice briefly the documents on the schools of Sweden.

"The evidences of improvement in Sweden," writes Mr. Brace, "are more apparent even than in Norway, under the indefatigable labors of Dr. Siljeström, who has done more for the schools, than all their Diets for a half century. The new school regulations for the grade of schools between the popular or common schools, and the universities, and the re-organization of the schools of Stockholm on the plan of the public schools of the cities of our country, are the fruits of his judicious agitation of the subject. He is introducing a reform in school houses and furniture by the publication of plans drawn principally from Barnard's School Architecture, and superintending the erection of model houses. He has established a Polytechnic school at Stockholm, and evening classes for technical instruction to workmen engaged in various mechanical pursuits. One of the most remarkable features in the education of Sweden, is the prominence given to physical training. There is a gymnastic apparatus connected with every important school. The Swedish Association of Teachers have the greatest confidence in Dr. Siljeström's judgment and second all of his movements with a hearty good will."

Improvement in Laborers Dwelling Houses.—A citizen of Gottenberg, whose name is not published, has recently given £10,000 to one society, and £5,000 to a commune for the erection of dwellings for laborers, similar to those provided for in the will of Abbot Lawrence.

RUSSIA.

We have received from Daniel C. Gilman Esq., for a time connected with the American Legation at St. Petersburg, and now Librarian of Yale College, a manuscript document drawn up for him in the department of Public Instruction, setting forth the "system of Upper, Medium and Lower Educational Institutions, existing in the Empire of Russia in 1854," which we shall publish soon.

ITALY.

The following notices of Institutions for Public Education in Genoa, Turin, and Milan are taken from letters by Rev. Abate Pullicino, Chief Director of Primary Education in the Island of Malta and Gozo—addressed to Prof. J. Tilleard, and first published in the Literarium for August (13,) and September (10,) 1856.

FEMALE TRAINING SCHOOL OF GENOA.—This school contains at the present time about twenty young women, who, during four hours daily receive from different masters instruction in grammar, geography, natural history, Scripture history, arithmetic, penmanship, linear drawing, vocal music, and method. The scholastic exercises are conducted with much propriety and order. The method adopted in the teaching is the simultaneous. The school is superintended by a governess, who, in the intervals of repose from study, further exercises the young women in female occupations.

This training school is directed by Prof. Vicenzo Troya, a gentleman who has published some meritorious works on education. Conspicuous endowments, both intellectual and moral, render him highly qualified for the honorable office which he holds.

FEMALE TRAINING SCHOOL AT TURIN.—This school is divided into three large classes, each presided over by a mistress. This division corresponds to a three years' course of study, which the pupils have to go through in order to become qualified as mistresses. The three classes are attended by 150 young women, who daily receive instruction from different masters in a variety of subjects. Much care is taken to exercise them well in Italian grammar and composition. Nor is the care taken in vain. Many of the students of the upper class write with so much facility and grace that nothing further could be desired.

PEDAGOGY IN UNIVERSITY OF TURIN.—A chair for Pedagogy has been created in the university of Turin. Some young men, by following the lectures given there, learn the principles of method, of which they afterwards see the application in the boys' schools. The young men generally leave this university school qualified as masters of method. Distributing themselves over the different provinces of the kingdom, they communicate at certain periods of the year the same instruction to others who wish to qualify themselves as elementary schoolmasters. In this manner, the normal instruction in not only propagated through distant regions, but is elevated to the rank of other studies which have the university for their chief seat.

The lectures on method in the university of Turin are given by Prof. Rayneri a clergyman of great zeal for the progress of public education. Among some excellent works published by him, may be particularized one which contains the principles of the science which he professes, entitled First Principles of Method.

PUBLIC ELEMENTARY SCHOOLS AT TURIN AND GENOA.—The elementary school in the arrangement of the instruction, and in the methods adopted, they are modeled upon the best schools of Germany. They are each divided into four classes, corresponding to four successive courses of study to be completed in four years. At the close of each year, the scholars pass by examination from one class to another. The instruction embraces reading, writing, arithmetic, grammar, and the elements of geometry, geography, and history. Vocal music and linear drawing are not neglected. Great importance is attached to exercising the boys and girls in speaking and writing their native language correctly.

SCHOOLS OF THE CHRISTIAN BROTHERS AT TURIN.—These are particularly excellent, and in them the best arrangements of the others may be observed. Various books published for the use of the other schools are employed. The boys remain six hours a day, four in the morning, and two in the afternoon. The number of children who are at present being educated at Turin in the schools of this religious order amounts to about 2,000.

INFANT ASYLUM AT TURIN.—Some of these asylums are under the direction of the Sisters of Charity. They are maintained partly out of public funds, and partly by private beneficence.

ABATE FERRANTE APORTI, who introduced the Infant Asylums into Italy, is now living at Turin. He is advanced in age, venerable in aspect, and infinitely

amiable in manner. Some years ago he rendered valuable assistance in the reorganization of the elementary schools of Piedmont, by giving a powerful impetus to the study of method. He now occupies an eminent position in connection with Public Education, being Rector of the renowned university of Turin.

TECHNICAL SCHOOLS AT GENOA.—The principal schools are at present, one for navigation and naval architecture, a second for chemistry applied to the arts, a third for industrial mechanics, and a fourth for drawing applied to the arts. The schools are furnished with a good supply of instruments and means of study, which are provided by the liberality of the chamber of commerce. The object is to improve the condition of the artizans, who have so great an influence on the state of the commerce of the country. These schools are all commendable for the manner in which they are organized, and the propriety with which they are conducted.

TECHNICAL SCHOOL AT TURIN.—The technical schools of Turin occupy some buildings adjacent to the Carignano palace. Here lectures of various kinds are given by able professors, sometimes in the evening, sometimes early in the morning, particular in chemistry and in mechanics applied to the arts. These schools are provided with abundant means of instruction, including a large collection of objects of natural history, and an excellent museum of machines and mechanical models. These last are in great part the work of one of the professors, who is a truly great ornament of this institution.

I allude to Professor Gulio, a man of mature age, but youthful vigor. He is singularly remarkable, not only for his knowledge, but also for the admirable and easy manner in which he communicates his ideas. These endowments render him a true type of the perfect teacher of a school established for the benefit of artizans. He is very widely known in Italy for a valuable work on industrial mechanics which he published.

REAL SCHOOL OR COLLEGE AT TURIN.—At Turin, that of the Carmine is distinguished both for its instruction, and for its discipline. About 200 youths reside within the walls, other 800 live outside, and only attend the instruction; altogether the students number 1,000. Many of them belong to the four elementary classes, which serve as preparatory to more advanced courses of study. These are of two kinds: classical and special. In the special course, things applicable to the arts are studied, such as (inter alia) linear drawing. Various professors give instruction in literature and science in the higher classes.

REAL SCHOOL OF MARINES.—This school serves to educate boys for the naval service of the State. The boys are admitted by examination; and, after passing with approbation through a regular course of study, they go out to occupy posts in ships of war. The number of pupils amounts at present to 50. They receive from different professors insturction in Italian literature, French language, calculation, physics, and mechanics applied to the art of navigation. Further, they are practiced in naval and artillery manœuvres. In the summer of each year they make a voyage of instruction in ships belonging to the State. Admirable order is observed in the college. The institution is provided with a physical cabinet, a library, and an astronomical observatory. This observatory is very well directed, and, being situated on an eminent point, it affords not a little convenience to the vessels which lie in the harbor.

The instruction in mechanics applied to the art of navigation is given by Professor Ciocca, a clergyman worthy of great regard for the attainments which adorn him, and the manners which render him infinitely amiable. He considers the extensive application which mechanics may have in the naval art as a point of the highest importance. With this subject he seriously occupies himself, and from his labors not only science, but the establishment to which he belongs, may one day derive great benefit.

INFANT ASYLUMS AT MILAN.—The infant asylums of Milan are modeled on the general plan of the institutions of this kind in Italy. They provide largely for the physical and moral, rather than the intellectual education of the children. Accordingly the instruction more particularly consists in the teaching of sacred history: some exercises in mental arithmetic are accompanied by singing or by slight movements of the body. The children are educated promiscuously as regards sex. They are made to wear a uniform dress in school. In the asylums for the poor, a dress made in the form of a blouse is supplied by the institution itself. The children pass the whole day in the asylum, and thus

the parents are relieved of the charge of them. Towards noon they partake of some food which they bring with them, or which is provided for them by the charity of others. Those asylums which are appropriated to the infants of wealthy families are conducted with greater propriety than the others. They have governesses qualified to give a more refined education. The parents pay a corresponding contribution, namely six Austrian *lire* a month. The asylums for the poor are maintained by private contributions. There are in all six asylums at Milan, and 1,500 children are educated in them.

PUBLIC ELEMENTARY SCHOOLS IN MILAN.—The elementary schools are of two kinds, lower and upper. The lower are composed of two classes, the upper of four, the two first (lowest) classes of the upper schools are the same as constitute the lower schools. The addition of other two higher classes is what constitutes an upper school. Each class has its special course of studies, to be completed in a year. The courses of the four classes of an upper school may be completed in four years. The boys and girls who at the end of a year are not found qualified to pass into a higher class repeat the course of the class in which they are. According to the grade of each of these classes, the boys and girls are exercised in Italian reading, grammatical analysis, penmanship, writing from dictation, Italian composition, arithmetic, and religious catechism. The children are received into the first class at the age of seven, up to that age the infant asylum is the place proper to their education.

Almost all these schools are under the superintendence of some clergyman, who acts sometimes in the capacity of director, sometimes in that of simple inspector. Among these clergymen I met some who are worthy of the highest regard for the love and zeal which they show for the institutions entrusted to their care.

Among the schools which I visited, I was pleased to notice an upper school for boys, situated in the vicinity of the course of the Porta Nuova. This school is remarkable in many respects. The discipline is perfect, the instruction excellent. The school is frequented by about 400 boys. Although the highest class is too numerous containing about 120 scholars, nevertheless they receive great benefit owing to the great ability displayed by the master who conducts it, in his instruction.

Nor should I omit to mention an upper school for girls, situated in another quarter of the city, namely, in the vicinity of the Church of St. Alexander. In this school about 500 girls are educated. The order maintained is remarkable, as also the propriety in the demeanor of the girls, although they belong for the most part to families of the poorer class. The method of instruction, as in all other schools of Milan, is simultaneous. In the two highest classes, the instruction is sufficiently varied and extensive. The girls are excellently exercised in Italian composition, they were tested in my presence. To the girls in the highest class was given as a theme, the proverb, "Truth is a virtue," on which some of them wrote in a few minutes some excellent composition. Some of the children showed themselves very expert, the result no doubt of the good education which they receive. They are well exercised in penmanship. A remarkable degree of care is taken to make them speak in school deliberately, and with a sufficient and not scanty number of words; this is done in order to habituate them to good and elegant modes of expression. Further, the school is provided with a small library, the books are selected and adapted to the condition of the girls; they are circulated among the diligent children for their instruction.

The number of lower elementary schools in Lombardy is said to be 5,000; of the upper schools there are 20. In these schools about 225,000 boys and girls are educated. The foundation or rather reform of these schools dates from 1820; although the act under which they were established was published two years earlier. Towards that time the population of this country had shown a desire for civil reforms, and the government had thought it necessary to reform first the institutions devoted to the education of the people. A worthy clergyman now an Octogenarian, Monsignor Carpani, canon of the cathedral at Milan contributed much to the promotion of this undertaking, using all his influence and all his talents to facilitate it.

THE OLDEST SUNDAY SCHOOL IN THE WORLD.—The Sunday school of the cathedral of Milan, owes its origin to San Carlo Borromeo—the author of the

best institutions of Milan. This school is a peculiarity of the place; under the vast and magnificent dome of this cathedral from noon to three o'clock on every feast day a large number of boys and girls assemble; the former are ranged in one wing, the latter in the opposite wing; the two classes are separated by curtains made for the purpose, the number is generally very considerable. I observed about 400 boys, and there was about the same number of girls. The boys and girls are usually distributed in various divisions. Besides the religious teaching instruction is given in reading, writing, and arithmetic; here are all the conveniences necessary for that purpose. The classes are conducted by clergymen, but various laymen lend their assistance from charity and from a spirit of religion. Remarkable order is maintained during the entire time of the instruction; the mode of teaching adopted is simultaneous; great are the advantages which many derive from this school.

Real Schools at Milan.—These Real Schools correspond to those elsewhere called Technical Schools. As the gymnasial schools serve to prepare youths for the faculties of theology, law, and medicine, so the Real Schools were established to prepare youths for the arts, commerce, and the profession of engineering, the students afterwards continuing to pursue analagous studies in the university. The studies in the Real Schools are distributed in two courses, a lower and an upper. Each of these courses is completed in three years; so that the complete course occupies six years; although the lower course serves as a basis for the other, nevertheless it is in itself complete. In the Real Schools the students are occupied seven hours daily. The instruction in the two courses comprises Italian language and literature, German language and literature, Geography, Natural History, Civil History, Physics, Geometry, and the infinitesimal calculus, Chemistry and Drawing applied to the arts are studied.

The Real School of Milan was established about the year 1850. It is now frequented by about 360 students. There is a similar school at Venice. In other provinces and cities of the kingdom there are also similar schools though of an inferior order: they contain only the two first (lowest) classes of the lower course. In the school of Milan the classes for chemistry, and for drawing applied to the arts merit particular attention. Both are provided with all the means necessary for the instruction. The chemistry class in particular possess a most excellent cabinet of manufactured chemical objects.

GREECE.

The London Times contains the following letter from William Smith O'Brien, to one of the Regents of the University of Athens.

"Dear Sir.—Being desirous to present to the University of Athens a copy of a work in two volumes which I have recently published under the title of 'Principles of Government,' I shall feel much obliged if, as representative of the University, you will cause it to be deposited in the library.

"I avail myself of this opportunity of offering my thanks to the professors for having been permitted, in company with my son, to attend several lectures at the University. Although I am aware that your halls are thrown open gratuitously to all who desire to attend the different courses of instruction, I am not the less sensible of the polite cordiality with which the professors welcomed our presence.

"We have observed with the greatest pleasure that in this country a most eager desire for instruction exists among all classes, and that the Government has endeavored to encourage these tendencies by promoting the establishment of schools for primary and intermediate education, as also by aiding the resources of your University, an institution which, I believe, owes its foundation to the public spirit of enlightened and patriotic individuals. These efforts have not been unproductive of fruit, and I much doubt whether there is a town in Europe inhabited by a population commensurate with that of Athens, which has made a greater progress in intellectual development. This progress is the more remarkable when it is remembered that in other countries the resources accumulated during past ages are brought to assist the intellectual operations of the present generation, whereas the very existence of modern Greece as a member of the European family claims no longer space of time than about a quarter of a century.

"The same observation applies also to industrial development. When it is remembered that almost every town and every field in Greece was laid waste by the Turks during the war of independence, the traveler is disposed to wonder that so much has been effected in so short a time. Such at least have been my impressions, though I have perceived with regret that some things have been left undone which might have been accomplished without much trouble or expense.

"I feel it to be due to a people from whom we have experienced much kindness and hospitality to offer my testimony in refutation of some of the misrepresentations which have been circulated in Western Europe with respect to the social condition of Greece, and which describe its inhabitants as a semi-barbarous people.

"Having just returned from an excursion in the northern provinces, during which my son and I rode about 300 miles unaccompanied by guards, and during which we had opportunities of conversing familiarly with men of all classes, from the monarch to the humblest peasant, I have come to the conclusion that there is at least as much of genuine civilization, if that word be used in the proper meaning, among the simple mountaineers of Parnassus as is to be found in the clubs of London or in the cafés of Paris. Let me add that during our tour we did not see a single drunken man, and were solicited for alms by only one beggar, a cripple without hands. I know no part of the united kingdom, or of France, respecting which a stranger could make a similar observation.

"That brigandage exists in parts of Greece, and specially in that part of the country through which we have recently traveled, is a fact which cannot be denied. Causes which lie beyond the control of the wisest statesmen have at various times occasioned outbreaks of this social disease; but, in candor, it ought to be observed that the greater part of Greece is as free as other portions of Europe from this calamity, and that great energy is at present directed towards its total suppression in those sections of the country in which it still exists.

"The misrepresentations to which I allude have been occasioned, in great measure, by the proceedings which took place in connexion with the insurrectionary movements of Thessaly and Epirus in 1854. I am not prepared to contend that those proceedings were consistent with political wisdom. They placed the Greek nation in antagonism with the two most powerful States of Western Europe, at a moment when those States were closely allied with Turkey.

"But, whatever may have been the motives of individuals, there can be no doubt that a great majority of the Greeks who took part in that movement were animated solely by a passionate desire, highly honorable to those who entertained it, to rescue their fellow-countrymen now resident in the Turkish dominions from that cruel oppression of which their own fathers had so long been victims. Had this movement taken place at a more favorable moment, it would probably have been hailed with enthusiastic approbation by the public opinion of Europe.

"Believing that the Hellenic race still possesses those heroic and civil virtues for which their ancestors were distinguished; believing, also, that the various elements of which it consists are destined to form hereafter one great and combined nation, I should feel disposed, if I were a Greek, to make little account of undeserved reproaches. On the other hand, sound policy appears to suggest that Greek patriotism should abide the progress of events and avoid external collisions, while, in the meantime, it should cultivate to the utmost all the resources, material, moral and intellectual, with which your country has been so richly endowed by Providence. In the performance of these honorable duties, the University which you represent naturally bears an important part. With best wishes for the success of its noble functions,

"I have the honor to be faithfully yours,
"WILLIAM SMITH O'BRIEN.

TURKEY.

A special committee has been appointed at Constantinople to inquire into the best means to promote public instruction in general, and to devise a plan for the organization of the higher branches of instruction in the spirit of the Hatti-Humayoun. In order to accomplish this, the non-Mahomedan communities will each send a delegate to take part in the deliberations of the committee.

Formerly, in Turkey, as in all other Mahomedan countries, the principal of individual education was followed as in England, the expenses being defrayed by numerous foundations, and the State having only a right of general superintendence. Not a Sultan died, from the conquest of Constantinople till the end of the last century, without making one or more foundations out of his private income. The conqueror Mohammed alone established eight schools for higher instruction near the mosque which bears his name. This liberal example given by the Sultan, was largely followed by the wealthy all over the empire. The result of this is, that there is scarcely a village in the whole empire which does not possess a mekteb, or school for primary instruction, of ancient foundation, and where more than 95 per cent. of the whole Mahomedan youth partake of this primary education. Constantinople alone numbered in the last century 1500 of these mektebs, in which children were taught reading, arithmetic, and religion.

Besides these schools for primary instruction, all the larger towns of the empire were provided with medresses, or higher schools, in which grammar, syntax, logic, metaphysics, philology, rhetoric, geometry, and astronomy are taught. Stamboul alone has 300 of them at this present moment.

Above these medresses were the colleges of the Ulemas, in which jurisprudence and dogmatics were taught.

The chief shortcoming of this system was the want of an intermediate link between higher and lower schools, which would have afforded an occasion for acquiring useful knowledge beyond the elementary instruction of the mektebs, without forcing the youth to make a profession of learning. It was a shortcoming which was felt until lately in England also.

In 1845 a commission was formed to introduce reforms and the report of this commission is the basis of the present system of education. It changed the principle which left education to individual exertion, and substituted that of an education given by the state. In carrying out this principle of centralization the committee followed the educational system in vigor on the continent, especially that of France. It centralized the whole education into the Ottoman University, with a permanent Council of Public Instruction, and divided the schools in three classes—elementary, secondary and high schools.

For the elementary schools the mektebs were taken as the basis. According to the will of their founders these schools had been always attached to some mosque, which had the direction of them and administered their revenues. The State was now substituted for the mosques. As these mektebs had arisen according to the fancy of the individual founders, they were unequally divided, and some more favored mosques had quite a superfluity. They were now divided according to the quarters of the different towns, and those which were not thought necessary altogether suppressed. Thus Constantinople, which formerly had 1,500 of these mektebs, now possesses only about 400. The revenues of the foundations were put under the administration of the State, and the masters and other expenses paid out of them; formerly a nominal fee of two piasters a month was paid by those who could afford it: this was abolished, and instruction was declared gratuitous, nay, obligatory for every male or female child past six years of age, and in order to enforce this law no master or tradesman is allowed to accept an apprentice who has not a certificate from some mekteb.

The secondary schools were formed after the model of the French schools. The course of study lasts four years, in which the students are taught grammar, writing, history, geography, arithmetic, and the elements of geometry. With these secondary schools, which were never brought up to the number of 14, originally decreed, the reforms ceased. Of the University only the shell exists used now as a French hospital. The only thing done hitherto for higher instruction by the State is the foundation of some schools for special purposes—for instance, those founded by Sultan Mahmoud, and attached to the mosques of Sultan Ahmed and Sultan Suleiman, for the education of public functionaries; that of the Sultan Valide, for the same purpose; an école honnête, for the formation of teachers; the school of Medicine, and some military schools—all at Constantinople.

It is, with this higher education that the newly-named mixed committee will have to deal.—*London Times.*

PERSIA.

The *Moniteur de l'Armee* contains the following:

"The Schah of Persia has just founded a military college destined for the instruction of young officers. The Prince takes the most lively interest in this establishment, which is near his palace in the citadel of Teheran. The instruction consists of mathematics, drawing of plans, the principles of the military art, and the French language, the knowledge of which is indispensable, as, strange to say, all the words or command are given in French. The college is placed under the orders of the First Minister, and under the particular superintendence of Aziz Khan, the Generalissimo of the Persian troops, and a brave and devoted officer. The director of the establishment is General Mehemit Khan, and the director of the studies is a captain in the French Engineers, an old pupil in the Polytechnic School; and he also gives the lessons in mathematics, drawing, and topography. The number of pupils is fixed at 200, and they are remarkable for their assiduity and thirst for instruction. The Schah is frequently present at the examinations, and his presence excites great emulation. As he understands French, he frequently interrogates the pupils in that language, and gives to the most deserving, prizes consisting of gold or silver medals. A polygon for artillery practice is established near the school, and the young Persians show great aptitude in that branch of the military art. The same establishment has also a school of medicine and one of pharmacy; in which botany and chemistry are taught. These schools are under the direction of Dr. Pollak, of Vienna, who succeeded to the post of physician to the Schah after the much lamented death of Dr. Cloquet."

BRITISH INDIA.

The Correspondent of the London *Times* in Bombay writes thus under date, May —, 1856.

"Matters connected with education have of late attracted considerable attention. You will remember that the Court of Directors recently issued a dispatch laying down wide and excellent principles of national education. A new department was consequently organized; a director-general was appointed, and large salaries were assigned to him and the inspectors. Committees were appointed to consider the plan of an Indian University, and a system of vernacular instruction was again commenced. Above all, the principle of grants in aid to schools, whatever their religious teaching, was established. The latter plan was, of course, the key of the whole, as the only one which could encourage private efforts and reconcile the prejudices of the three great creeds. The system has now been in operation for a year. It was lately announced that the sum allotted for grants in aid was exhausted. This sounded well, until it was suddenly discovered that this 'sum' amounted to just £3,360 a year. The salary of the director-general is £3,000. The amount will doubtless be increased, but the whole expenditure on education in Bengal turns out to be less than £80,000 a year. Our population may be roughly estimated at 40,000,000. That is, we have as yet allowed for the education of the people a little less than two farthings ahead a year. The average cost of vernacular education is about 10s. a head a year. It might be reduced, perhaps, to 6s., but certainly not lower. There are 3,000,000 boys—for as yet we cannot educate the other 6,000,000—to be taught, and the cost therefore must be at the lowest £1,000,000 sterling a year. That sum is perhaps impossible, but we do not yet spend—and, unless the home authorities again interfere in it, we are not going to spend—a tithe of that amount. In the midst of this the chief engineer of the Presidency, Colonel Goodwyn, who recently prepared an estimate for building a bridge over the Hooghly, but calculated only the expense above the water line, has submitted a plan for a University building which will cost £200,000. It will be rejected; but the fact, for which I can vouch, illustrates the present defect in all our schemes of education. The work is scarcely begun, and the Government is still unable to perceive that, if done at all, it must be on a scale commensurate with the necessities of the country."

LOWER CANADA.

EDUCATIONAL INSTITUTIONS.

From the voluminous and able Report (for 1855,) of Mr. Chauveau, the new Superintendent of Education for the lower province, we extract the following highly interesting particulars.

The educational institutions of Lower Canada are classified in three grand divisions, viz: of Superior, of Secondary, and of Primary Schools. The first class is subdivided into Universities and Special Schools; the second, 1st, into Colleges, or properly so called Secondary Schools; 2ndly, into Academies, or Secondary Preparatory Schools; 3rdly, into Convents, or Academies for girls; and 4thly, into Special Secondary Schools. The third division comprehends the Superior Primary or Model Schools, and lastly the Elementary Schools.

The data on which these divisions are based are still very imperfect; and we must not be surprised if there have crept in some errors and anomalies.

The recapitulation of the three divisions gives the following results:

Divisions.	Number of Schools.	Professors and Teachers.	Number of Pupils.
Superior Schools,....	12	54	331
Secondary, ".	140	767	20245
Primary, "	2736	2850	112193
Grand total,.....	2888	3671	132769*

We have two Universities with five Faculties organized, and seven special Superior Schools, making altogether twelve Superior Schools, namely: five Theological Schools, of which there are four Catholic and one Protestant; two Faculties and one School of Law, two Faculties and one School of Medicine, and one Faculty of Arts.

There are 13 professors and 143 students of Theology; 10 professors and 46 students in the Faculty of Law; 25 professors and 105 students of Medicine, and 6 professors and 37 students in the Faculty of Arts, of McGill College.

The Faculty of Arts of the University of Laval is not yet organized; but several students from the College of Quebec are now in the highest educational institutions of Europe, preparing themselves for professorships, and their return is awaited for the opening of that important department of the Institution.

The united libraries of the Superior Schools and Colleges, give a total of 78,300 volumes. The cost of the museums, and of the apparatus for the classes of natural philosophy comes up to £12,750.

The value of the buildings belonging to these institutions would appear to be £155,500, a figure which I am sure is much below the reality; and it will be seen that the greater part of these edifices has been erected within the last few years. I have been unable to obtain satisfactory information as to the value of the buildings for Academies and Convents. It is also to be regretted that the information furnished to the Government respecting Superior and Secondary Schools, does not enable me to state, with certainty, the whole amount paid every year by the inhabitants of Lower Canada, as well under the designation of board for their children, at Colleges, Academies, and Convents, as by voluntary contributions for the erection of the buildings occupied by such institutions. There are also voluntary contributions for the support of Common Schools, of which no

* This total of 132,769 pupils makes a proportion of 56 per cent. of the children from five to sixteen years old. The proportion for Upper Canada is 76, and for the United States 66.

Report has been made, and extra assessments for the construction of school houses, the amount of which is not known. From approximate calculations, I may say, without fear of error, that the people of Lower Canada have for the last five years contributed in this manner over one hundred thousand pounds currency per annum. This sum should be added to the £63,000 produced by the ordinary legal assessments; and this would in fact give an amount nearly as high as that raised in Upper Canada for purposes of education.

The first section of the second division shows 24 Colleges, with a total of 252 Professors and Directors, and 4,089 Students. In six of these institutions, the dead languages are not taught; but in consequence of the length of their course of study, and the number of their students, I have thought it right to continue to extend to them the title of College, which they had themselves assumed.

The Seminaries of Quebec and Montreal, the two most ancient of our establishments, receive no assistance from the State. Their property consists principally in donations and ancient endowments. Their libraries, their cabinets of natural philosophy, and their museums, do them the greatest honor. One of these institutions, the Seminary of Quebec alone, possesses in its three divisions, that is to say, in the University of Laval and the greater and lesser Seminaries, 22,700 volumes. Its museum and cabinet of natural philosophy have cost over £5,000. Not to speak of the value of the greater and lesser Seminaries, the country seats of Mézerets and St. Joachim, where professors and students may, during the holidays and vacations, rest from the fatigue of their classes, the University of Laval has already spent over £24,000 in the building of, the vast edifices now in process of erection, and the total cost of, which will amount to at least £50,000.

There are 12 professors of the University, 4 of the greater Seminary or School of Theology, 26 of the College,—making 42 altogether.

The two Faculties in actual operation, those of Medicine and of Law, have both together 36 students; the Theological School, has 42, and the College 400, making altogether 478.

The Seminary of St. Sulpice has several libraries, which, united, would amount to more than 12,000 volumes. One of its collections of minerals, consisting of more than a thousand specimens, is a present from the celebrated Haüy, and was assorted and classified by himself. The Rev. Mr. Villeneuve has collected such a great number of geological and mineralogical specimens, that they have not yet been completely classified; these collections and the cabinet of natural philosophy have cost over £3,000.

The professors of the greater Seminary, or Theological School, are 5 in number, and 18 are attached to the College,—making 23 altogether; of pupils, 60 attend the Theological School, and 256 the College,—making altogether 316. Besides this, the Seminary maintains a great many schools, and defrays the expense of rearing 129 orphans under the care of the Sisters of Charity. This institution annually expends £7,500 in education, and through its means 5,000 children receive a christian education.

The revenue from the farms of the Island of Montreal, is specially destined to the establishment of a model farm, on which vast agricultural works, which will soon prove to our farmers what the earth can produce, when cultivated with energy and intelligence, are already commenced.

The University of McGill College, which has lately suffered, by fire, a loss that no friend of education will fail to regret, succeeded however in saving nearly

the whole of its library, comprising 3,700 volumes. The value of its buildings is about £17,000 currency. In the three Faculties there are 20 professors and 109 students, and 9 masters, and 213 pupils at the High School, or College, in connection with the establishment,—giving altogether 29 professors and 322 pupils. Besides its regular classes this institution has commenced a course of popular lectures, which are delivered in the evening, and promise to be very successful.

The Colleges of Nicolet, St. Hyacinthe, Ste. Thérèse de Blainville, of Ste. Anne de la Pocatière of L'Assomption and of St. Mary at Montreal, are rapidly following in the traces of the two institutions of Montreal and Quebec. With respect to the institutions of more recent foundation, it is astonishing, considering how numerous they are, that they manage to support themselves; and nevertheless it will be seen that they not only do so, but also make considerable progress. Two new Colleges not mentioned in the table, one at Côteau-du-lac and the other at Rimouski, are in process of construction, and will soon be opened.

In eight of these institutions, the mathematical course is as full as possible, and comprehends the study of differential and integral calculus. In eight others, it stops at conic sections, and in the remaining eight, goes no further than algebra and elementary geometry.

In twenty-one colleges, mechanics and astronomy are taught; in fifteen, chemistry; and in seventeen, natural history. In some establishments meteorological observations are regularly made. It would be very desirable that they should be generally extended, according to some system similar to that already adopted in Upper Canada. Dr. Smallwood, who has for a long time successfully prosecuted these investigations, has favored me with suggestions of which I will not fail to avail myself, as soon as possible, more especially with respect to Academies and Model Schools under the direction of the department.

Hebrew is taught to a few students in three establishments; Greek forms part of the course of fifteen Colleges, and Latin of eighteen. The elements of these two languages are also taught in several Academies.

English and French are also taught everywhere. In Colleges where French is the language of the classes, two methods have, of late years, been adopted to insure the progress of the pupils in the acquirement of the English language. The first is to teach some particular branch in that language, the second to devote, every week, a certain number of the hours of recreation to English conversation. The two languages spoken in the country should not in fact be studied as dead languages, but ought on the contrary, to be classed amongst things indispensable; and it would be very important that the Lyceums or Academies, where English is the language of the school, should adopt, in the study of French, some such method as the one I have just mentioned. Italian and German are taught only in the High Schools of Quebec and Montreal.

Belles-Lettres are every where taught, as are also geography and history. The History of Canada and that of the United States have, for the last few years, received more attention than they used to.

In nineteen Colleges, rhetoric; in eighteen, metaphysics and moral philosophy form part of the course of study.

The fine arts, music, vocal and instrumental, drawing, and painting in water colors, appear in all the programmes: linear, drawing, and the art of making plans and surveying, figure also. It is to be regretted that none of them mention fencing, swimming, horsemanship, or gymnastic exercises.

Eight Colleges have a commercial course separate from the classical; in fifteen others, book-keeping is taught as an integral part of the ordinary course.

Thirteen of these institutions have commenced practical courses on agriculture and horticulture; and in ten are taught the elements of jurisprudence and constitutional law, which also form part of the programme of several Academies.

Religious instruction is given in all the Colleges. At the High School of the University of McGill College, and at the College of St. Francis at Richmond, that instruction appears to be what it has been agreed to call "of a non-sectarian nature."

The number of boys' or mixed Academies is 43, with a total of 150 teachers, male and female, and 4,472 pupils. It will be noticed that the institutions where boys and girls attend together are almost all in the Eastern Townships. The Convent Schools and girl's Academies, forming the third section of the division of Secondary Schools, are 71 in number, and are attended by 11,639 pupils.

In most of the Convents and young ladies' Boarding Schools, the boarders and day boarders are taught history, geography, parsing, compound arithmetic, *Belles-Lettres*, the elements of astronomy, of mechanics; of chemistry, and of natural history, drawing, painting, music, vocal and instrumental, and all those sorts of needle work which form part of a complete feminine education of the highest order. The number of pupils, boarders and day boarders, who study all these branches, amounts to 4,139.

A considerable number of Catholic and even of Protestant pupils at these Convents, as well as at our Colleges, come from Upper Canada, and from the neighboring Provinces and States.*

The establishments of the Canadian order of the Congregation of Notre Dame of Montreal, several of which are of ancient foundation, kept up through the country, even in our worst days, a certain amount of education amongst the women of Lower Canada. It is to this that the French Canadian owes in a great measure that excellent domestic education which makes him particularly distinguished for the mildness of his character and the urbanity of his manners, not the least important amongst the elements of true civilization.

In making a comparison between this and other countries, we should never lose sight of the long suppression of the Order of Jesuits, the principal and most numerous body of teachers in existence, at the time of the conquest, the re-union of their property to the domain of the Crown, the rejection by the Legislative Council, under the old constitution, of several bills on the subject of public instruction, which had passed the House of Assembly, and lastly the state of isolation in which the Colony remained for so long a time after its cession by France. French books and French journals, the only ones that the people could read at a time when nobody knew English, were rare and high-priced. This circumstance must have considerably retarded the intellectual progress of the country. Books and journals are the complement of the school; and when those who have received some education, have very few opportunities of developing and improving their knowledge, it cannot reasonably be expected that they will make the exertions necessary to disseminate information, and accelerate the progress of public instruction.

Happily, the greater facility of intercourse with France, and the knowlege of the English language, becoming more and more general amongst us, have produced, and are, day by day, developing a very different state of things.

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* It has been impossible for me to ascertain the number of volumes contained in the libraries of these establishments, but it must be considerable, if I may judge from the fact that the Convent of the Congregation of Notre Dame at Montreal, which is the parent institution of that order has for its own share more than 9,000.

UPPER CANADA.

UNIVERSITY AND COLLEGES.

From the official returns submitted to the Legislative Assembly of Canada, June 18th, of the present year, we are enable to present the following information regarding the higher seminaries of learning under government patronage in the upper province. The returns contain tabular statements on the following topics: 1, Annual Expenditure; 2, Sources of income; 3, Number of Professors; 4, Course of Study; 5, Number of Graduates, matriculated, as well as other students, distinguishing day students, their residences, religion, and age, as also their standing in their respective colleges. The last mentioned particulars concerning day students, though an important subject of local interest, would of course possess no value to the readers of our journal; and we shall therefore omit the details connected with them.

1. The account rendered with reference to the first of the topics enumerated above, present the annual expenditure for the University of Toronto, as amounting to £11,543; for Upper Canada College, Toronto, £8,441: The amount of surplus of the University income fund remaining on hand, at the disposal of parliament for academical education in Upper Canada, £6,580.

2. The amount of University income for the year 1855, £13,869; of Upper Canada College, £6,394.

3. The number of Professors in University College, is ten; one of whom is also President. Besides these, there is one lecturer, and one classical tutor. In Upper Canada College, there is one principal, with eleven masters of different grades.

4. The University embraces, in its plan, the Faculties of Law, Medicine, and Arts, a department of Civil Engineering, and one of Agriculture. The professorships embrace the following subjects, as grouped in our enumeration of them: classical literature, (Greek and Latin,) logic, rhetoric, and belles-letters,—metaphysics and ethics,—chemistry and experimental philosophy,—the theory and practice of agriculture,—natural philosophy,—history and English literature,—natural history,—mineralogy,—modern languages, (French, Italian, German, Spanish,) Meteorology,—Oriental Literature, (Hebrew, Chaldee, Syria.)

Upper Canada College, ("Academy,") embraces in its course of instruction, the following subjects,—Latin, Greek, Mathematics, French, English, Arithmetic, Geography, Book-keeping, Writing, History, Natural Philosophy, Ornamental drawing, instrumental music.

5. The Graduates of the University are enumerated as follows: D. C. L. 4; M. D., 18; M. A., 22; B. C. L., 4; C. M., 1; B. A., 61; Mus. Bac, 1. Total 111. Undergraduates, Faculty of Law, 30; Medicine, 7; Arts, 48. Additional Students recently matriculated, 26. Total number of students including those who do not rank as undergraduates, but attend a partial course of lectures, 151.

The pupils of Upper Canada College are classified on the English plan of "Forms" (virtually *classes*,) enumerated from the "seventh" to the "first," together with a preparatory form; the whole number of pupils amounting to 225.

The detail of particulars regarding the examinations for matriculation, honors, and degrees, in the University, would occupy too much space for our

limits. We may say, however, in passing, that they indicate a sincere desire, on the part of the different Faculties, to render the examinations a series of genuine tests, in regard to attainments, and not a mere *pro forma* affair. We remark, with pleasure, the gratifying circumstance, that in a city so limited, as yet, in population, as Toronto, its college and preparatory schools provide a course of liberal education for so large a proportion of its inhabitants.

The returns from other colleges besides those which have been mentioned, are from various causes, less full in detail, than those of which we have given the preceding statements. In Victoria College, Cobourg, the number of Professors is 9; that of matriculated students in the four classes, freshmen, sophomores, juniors, and seniors, is, in all, 33. The studies of these classes are nearly like those in our own Colleges. In the preparatory course there are 196 pupils in the medical department, 70 students; total, 299.

Regiopolis College, Toronto, (Roman Catholic,) Professors, 6; Students, 70; besides a numerous Preparatory School. Course of study, partly similar to that of academies in the United States, and partly to that of our colleges.

Queen's College, Kingston, Professors, 10 in number with a Vice Principal; matriculated students, in the Faculty of Arts, 30; Theology, 10; Medicine, 47; Total 87. Graduates, B. A., 45; M. A. 12; M. D., 13.

One most encouraging feature of these various returns we have not room to present in detail; but it is one which augurs most favorably for the diffusion of intelligence and of sound learning among the professional and the wealthier classes generally in Canada:—we refer to the annually increasing numbers of all the classes, both in the colleges and the preparatory schools. The rapid advance of material prosperity in British America, seems happily to be attended by a constantly widening influence in favor of intellectual and moral culture, of a higher order and a more effective character, than formerly prevailed. The increasing interest taken by all classes of the people in general education, and the efficient measures, now in progress for the advancement of schools, give assurance that the onward course of the higher seminaries of learning, will be continual and steady.

NORMAL, MODEL, GRAMMAR AND COMMON SCHOOLS.

The annual report of Dr. Ryerson a Chief Superintendent of Education in Upper Canada, for 1855 is before us, in a document of 348 pages, royal octavo—full of interesting details respecting the Normal, Model, Grammar and Common Schools. We know not where to point to the evidence of more substantial improvement in the organization and administration of a system of Public Instruction during the last ten years, and to the assurance of still greater progress in education and knowledge during the next ten years—than to this document, for the province of Upper Canada. We shall give an abstract of this report in our next number.

Summary of Statistics. 3,325 Common Schools, with 222,864 pupils, at an expense of £224,818; 65 Grammar Schools with 3,726 pupils at an expense of £13,535; 1 Normal School with 124 pupils at an expense of £5,576; 179 Municipal Libraries with 116,762 vols., at an expense of £13,870; Apparatus, viz. 1,304; 48 globes &c., have been sent out to 159 schools at an expense of $4,655; 85 worn out teachers of an average of sixty-five years have received a retiring pension from the Relief Fund; 5,000 copies of the Journal of Education are issued monthly and furnished gratuitously to School Officers; £288,998 or nearly $1,156,000 were expended on 3,719 Educational Institutions in 1855.

UNITED STATES.

We intended under this head to have published a large mass of information respecting Educational Associations—State and National; Legacies and Donations to Schools and Colleges; Inauguration of new institutions, recent School Legislation, and Educational movements generally in each State. But we are limited to a few pages, and shall reserve our material for the next number.

A Teachers' Convention was held at Selma, Ala., on the 24th and 25th of July, over which L. C. Garland, L.L.D., President of the State University, presided. The condition and improvement of the Primary Schools, of the State was presented by W. F. Perry, Superintendent of Common Schools, discussed by Dr. Garland, M. T. Walthall and D. F. Merrill of Mobile, L. J. McCormick of Russell, A. W. Richardson of Wilcox, and J. H. Cambell of Dallas. An address on "*Female Education, and as it should be*" was delivered by Prof. J. Darby, and another by President Garland on "the *Mission of Colleges.*" At an early stage of the proceedings a permanent organization was formed under the name of the Alabama Educational Association.

The Eleventh Annual meeting of the New York State Teachers Association convened at Troy on the 5th of August, and adjourned on the 7th. The President, L. Hazeltine, opened the meeting with an address on the history and policy of the association. An address on "*Music, its Extent and Influence,*" by Mr. Cavert of Amsterdam; by Mrs. Coleman of Rochester, on "*Corporal Punishment;*" by Prof. E. North of Hamilton College, on "*American Scholarship;*" by Miss Douglas of Newburgh, on "*Physical Education;*" by Dr. Lambert of Peekskill, on "the *Syntax of Science;*" by Miss Antheny of Rochester, on the "*Education of the sexes together;*" by S. S. Randall of New York, on the "*Responsibilities and Duties of Teachers;*" by S. B. Cole of Albany on "*Elevated Aims in Life.*"

The Semi-Annual Session for 1856 of the Pennsylvania State Teachers' Association, was held at Williamsport on the 12th, 13th and 14th of August. The President, I. P. Wickersham, Superintendent for Lancaster County, opened the meeting with an address, which was followed by remarks from Bishop Potter. An address was delivered by Prof Davies, a delegate from the New York Teachers' Association. Reports were read by Mr. Plotts, on *Mental Discipline*; by Prof. Deans of Pittsburgh on *High Schools;* by Dr. Tyndale on a *State Normal School;* by A. M. Gow on *Blackboards;* by A. R. Browne on *Graded Schools;* by A. M. Gow on the *Relation between Secular and Sunday Schools;* by Miss M. Edgar on the *Combination of Moral, Religious and Intellectual Instruction;* by I. H. Orvis on the *Number of hours of School per day;* by C. U. Deans on *Truancy.* The reports were followed by animated and practical discussions. The reports and a sketch of the discussions are contained in the Pennsylvania School Journal for September. The next meeting will be held in Harrisburg, on the 20th of December 1856. About 200 members were present.

The First Semi-Annual Session of the Indiana State Teachers' Association met at La Fayette on the 19th, 20th and 21st of August 1856. Addresses were made by the President, Charles Barnes, on "*Colleges and their relations to Public Schools;* and by Dr. R. F. Brown, on "*Physical Education*

or Relations of the OUTER AND INNER MAN." Discussions were held upon the subject of the Presidents address; on "*Free Schools*," on "*Report on the duties of this Association in reference to Educational Progress*," on "*Increase of State tax for school purposes*, and on an Educational Journal supported by the Association.

THE ANNUAL MEETING OF THE WISCONSIN TEACHERS' ASSOCIATION was held at Beloit, on the 20th, 21st and 22d of August, 1856. Addresses were made by the President, J. L. Packard, on the "*Trials of Teaching*;" by Prof. J. Emerson of Beloit College, on "*History—its office in the work of Education*," and by W. Van Ness on the "*Disconnection of the State Superintendency with Politics*." Discussions were had upon the topics suggested by the lecturers, and on the Educational Journal supported by the Association; on school houses; on a State Normal School; on Teachers Institutes; on Union or Graded Schools; on the Education of the Sexes together; and on the condition of the schools and of education generally in Wisconsin.

EDUCATIONAL CONVENTION IN VIRGINIA.—Pursuant to a call through Governor Wise, a convention of delegates from the principal colleges and academical institutions of Virginia assembled at the Capitol, in Richmond, on the 23d and 24th of July, of which Rev. Dr. Smith of Randolph Macon College, was appointed President, and Rev. Dr. Regland of Richmond College, Vice President. The condition of the Literary Fund, and its application; the evils of premature admission of students to colleges and the remedies; the affiliation of the Academies, Colleges, and the University of the State; the qualification of students of professional schools of Law, Medicine and Theology; the education of girls; a system of Normal Schools and schools of applied science were discussed and referred to committees to report on, at a meeting to be held in the month of December, or at the call of an executive committee.

COLUMBIA (SOUTH CAROLINA,) ATHENÆUM.

An institution to embrace a Library, Reading Room, and Popular Lectures has been recently established in Columbia, South Carolina, and was inaugurated by an introductory lecture from Prof. Lieber, "*on the History and uses of Athenæums*." Prof. Leiber thus speaks of the history of the name.

The term Athenæum comes down to us from remote antiquity. Every place, town, temple or other fabric dedicated to Pallas Athene, the goddess of wisdom, was called in Greece, an Athenaion. There was a building in Athens called the Athenaion, where rhetoricians and authors read their productions, and youth received partial education, or at least instruction. The Athenæum, however, through which the name became most known in western Europe, was, probably, the institution which the emperor Adrian established on the Capitoline Hill after his return from his eastern tour, about one hundred and twenty years after Christ. This Roman Athenæum was a building where paid teachers or professors, as we would call them, taught rhetoric and philosophy; and where literary productions were publicly read. It was the highest educational establishment of the western portion of the empire—a sort of university; on a small scale indeed, compared with the magnificent institutions of this name in our times. When a youth had completed his provincial training, he would, if sufficiently wealthy, go to the Athenæum of Rome to finish his education. Other cities of the empire had their Athenæums. There was one at Lyons. The dark ages swept away these as nearly all other cultural establishments; but when the love of knowledge went forth again from the cloisters, we find an Athenæum at Marseilles—a sort of academy of belles-lettres. The name was occasionally given to similar societies in other places; but it was rarely used for the same purpose in Germany. There the word Athenæum has been chiefly employed, so far as I recol-

lect, for periodicals treating of topics connected with belles-lettres and taste.* The Athenæum long edited by Schlegel, known by most of you as the author of the History of Literature, has acquired great renown. There is a periodical of the same name in London, but in England the term Athenæum is chiefly used for institutions connected in some way with literature, or in general of a cultural character. The Athenæum club in London, was established by artists and literary men. The Athenæum in Liverpool, in the foundation of which the great banker-author, Roscoe, was especially instrumental, was probably the one that became the inciting cause of the establishment of the Boston Athenæum which was founded about the year 1807. Both the Liverpool and Boston Athenæums are establishments such as I have characterized, and as you are erecting here.

DO GOOD IN YOUR LIFE-TIME.

Some wealthy men are penurious in their charities during life, reserving their property for magnificent schemes of benevolence after death. The history of these posthumous legacies is not very encouraging, and Providence does not set the seal of approval on that covetousness which seeks to win the name and rewards of benevolence. The Baltimore *Sun* gives an instructive account of the McDonough estate:

"A number of papers, relative to the condition of the McDonough estate at New Orleans, have been forwarded to the Mayor and City Council of Baltimore, by Messrs. Emory and Peterkin, which embrace statements of considerable importance. It is stated by gentlemen of the New Orleans City Council that 'the income from the estate is about $55,000 per annum, and the expense about $27,000—leaving only $28,000 of net revenue, which is $1,000 less than the taxes on the property for the year 1856. So that the net income is insufficient to pay the taxes on it.'

Another member remarked, that the estate was worth now about one-half what it was when McDonough died—$5,000,000 then, $2,270,000 now. We have a bequest estimated, and fairly estimated, as worth $2,271,000. We have it under the control of able and accomplished gentlemen, and what are the fruits of their labors? John McDonough has been gathered to his fathers five long years. In a vain attempt to leave a noble monument of charity, he made a will as wonderful and curious as it is hopelessly impracticable. Over $250,000 have been spent in litigation; over $100,000 have been spent in charges and commissions; over $500,000 have been lost in interest and delays; over $500,000 have been lost in decay and pillage, and depreciation of the princely domain. And, in short, these five years past have cost the estate one-half its original value. But notwithstanding all this, not one dollar of charity has ever yet been received by this estate, not one poor child has ever yet been educated; not one poor negro has ever been sent to Liberia; nor the tears and sorrows of one poor orphan boy ever yet been assuaged. At every point and in every way has the last will and testament of John McDonough been frustrated and thwarted. For the year 1855, the report of the agents and commissioners informs us that the revenues were $49,000, whilst its expenses were $29,000. The value of the real estate in the city of New Orleans is $1,200,000. In the State of Louisiana $2,270,000. The net revenues of $19,805 have thus been for 1855 but ½ per cent. of the city property, and but $\frac{7}{8}$ per cent. of the whole estate. The charges of commissions of agents, &c., for 1855, were near $15,000, or one-third of the gross revenues and three-fourths of the net revenues. The estate paid no city tax for 1854, which would have been for Baltimore's half over $15,000, and for the whole $30,000—or a sum greater than the whole net revenue. Such are the naked and startling facts displayed by the report. Nor is the end yet; three suits are now pending against the estate, each involving a large sum, and each carrying a new burden of expense."

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* What we now call Athenæum is more frequently named in Germany a *Museum*. Our showmen have changed this, and the term, indicating a place sacred to the muses, is used for exhibition rooms sacred to bearded women, stiched mermaids and the like.

XIII. CONTRIBUTIONS TO THE LITERATURE OF EDUCATION.

We have on our table a number of reports, inaugural addresses, and treatises which are valuable contributions to the Literature of Education—which we propose to notice and from which we shall make extracts hereafter. We can now only find room for the titles.

LETTERS ON COLLEGE GOVERNMENT, and the evils inseparable from the American College system in its present form, originally addressed to Hon. A. B. Meek one of the editors of the Mobile Register, by Frederick A. P. Barnard, LL. D. New York: D. Van Nostrand. 1855. 104 pages.

REPORT ON THE PLAN OF INSTRUCTION in the University of Alabama, made to the Faculty of the University by F. A. P. Barnard, LL. D; New York. 1855. 104 pages.

A COMPLETE SYSTEM OF EDUCATION. A lecture delivered before the American Academy of arts and sciences, January 19, 1853, by Samuel A. Eliot. Boston. 1853. 19 pages.

CAMBRIDGE ESSAYS, contributed by members of the UNIVERSITY, 1855. London: J. W. Parker & Sons, oct. 308 pages. The article on General Education and Classical Studies contains valuable suggestions which we shall transfer to our pages.

OXFORD ESSAYS. Contributed by members of the University, 1856. London: J. W. Parker & Son. 312 pages.

The article on NATIONAL EDUCATION by Rev. Frederick Temple, late Principal of Kneller Hall Training School is a masterly review of the state of educational parties on England at this time.

CONTRIBUTIONS TO THE CAUSE OF EDUCATION. By James Pillans, formerly Principal of the High School, and Professor of Humanity in the University of Edinburgh. 591 pages. London: Longman, 1856.

DISCIPLINA REDIVIVA: or Hints and Helps for Teachers leaving school. By Rev. J. S. Gilderdale. London: Bell & Dalby. 271 pages.

CLASSICAL SCHOLARSHIP AND CLASSICAL LEARNING; a practical Essay on Liberal Education. By J. W. Donaldson, D. D. London: Bell & Dalby, 1856. 259 pages.

THE EDUCATORS INSTRUMENTS. Hints on Method, School Government &c. By G. C. Drew. London: Judd & Glass. 1856.

LECTURES ON EDUCATION. Delivered at the Royal Institution of Great Britain. London: J. W. Parker & Sons. 1855. 315 pages.

THE BEDFORD SCHOOLS AND CHARITIES OF SIR WILLIAM HARPER. By James Wyatt. London: Longman. 1856.

A little piece of property in London, being a part of an estate left by Sir William Harper of Bedford, to endow a free school in that town, and originally leased for £12 per annum, has improved in value so as to produce in 1855 a rental of £13,000.

COLLEGIATE AND PROFESSORIAL TEACHING AND DISCIPLINE: By E. B. Pusey, D. D. London: J. H. Parker. 1854. 217 pages.

OXFORD REFORM AND OXFORD PROFESSORS. By Henry H. Vaughan. London: J. H. Parker. 1854. 120 pages.

THE END AND MEANS OF A LIBERAL EDUCATION. An Inaugural Address, delivered July 11, 1854. By M. B. Anderson, President of the University of Rochester: 1855. 95 pages.

THE RENSSELAER POLYTECHNIC INSTITUTE. Its re-organization, its conditions, and plans for the future. By B. Franklin Greene, Director of the Institute. Troy, N. Y. 1853. 95 pages.

IDEA OF THE NEW ENGLAND COLLEGE AND ITS POWER OF CULTURE.—An address delivered on the occasion of his inauguration as President of the University of Vermont, August 5, 1856. By Rev. Calvin Pease, D. D. Burlington. 1856. 52 pages.

THE SCHOLAR OF THE PAST AND THE PRESENT. An Inaugural Address to the Students of Trinity College. By Samuel Eliot, Professor of History and Literature. Hartford. 1856. 30 pages.

HISTORY OF THE SCHOOL of the Reformed Protestant Dutch Church in the city of New York, from 1653 to the present time. By Henry Webb Dunshee, with an introduction by Rev. Thomas De Witt, D. D. New York. 1853. 120 pages.

THE EDUCATIONAL USES OF MUSEUMS OF NATURAL HISTORY. Being the introductory lecture of the session of 1853–4. By Edward Forbes F. R. S. London: Longman. 1853. 19 pages.

INDUSTRIAL INSTRUCTION ON THE CONTINENT. Being the introductory lecture of the session 1852–53. By Lyon Playfair, C. B. T. R. S. London: Longman. 1852. 54 pages.

THE LIFE AND SYSTEM OF PESTALOZZI. By Karl Von Raumer. Translated from the German by J. Tilleard. London: Longman. 1855. 80 pages.

THE SCHOOL IN ITS RELATIONS TO THE STATE, THE CHURCH AND THE CONGREGATION. By Sir James P. Kay Shuttleworth. London: John Murray. 132 pages.

THE EDUCATOR; or the Home, the School and the Teacher. 1856. London: Ward & Co.

THE NEW CRATYLUS; or Contributions towards a more accurate knowledge of the Greek Language. By John William Donaldson D. D. London: J. W. Parker. 1850. 750 pages.

HISTORY OF LEICESTER ACADEMY. By Emery Washburn. Boston: Phillips, Sampson & Co. 1855. 158 pages.

QUARTER CENTURY CELEBRATION OF ILLINOIS COLLEGE. Historical discourse. By J. M. Sturtevant, D. D. 52 pages.

CRETINS AND CRETINISM. Prize Essay of the University of Edinburgh. By George S. Blackie, M. D. Edingburgh: 1855. 70 pages.

THE PRESENT ASPECT OF THE SCOTTISH EDUCATION QUESTION. With a Historical Survey. By Layman. Edinburgh: 1856. 40 pages.

MONTICELLO FEMALE SEMINARY. Historical address delivered in Monticello, Ill., June 27, 1855, at the seventeenth Anniversary of Monticello Female Seminary. By Rev. Theron Baldwin, first Principal of the Institution. New York: J. F. Trow. 1856. 32 pages.

XIV. NOTICES OF BOOKS.

1.—*A Complete Pronouncing Gazetteer, or Geographical Dictionary of the World. Edited by* J. THOMAS, M. D., *and* T. BALDWIN, *assisted by several other gentlemen;* Philadelphia: J. B. Lippincott & Co., 1855. Large 8vo. pp. 2,182.

This extensive Gazetteer is based upon "Johnston's Geographical Dictionary," the English "Imperial Gazetteer," and for the United States, upon the "Gazetteer of the United States," by the editors of the present volume. It is the result of great labor, ability and discriminating judgment, and for fullness and accuracy, combined with compactness, surpasses any work of the kind from the American press. It has a merit of a high and peculiar character, in giving the pronunciation of geographical names on principles now generally received by the best authorities. We have consulted it often, with great satisfaction, and recommend its introduction into all libraries of reference.

2.—*Appletons Cyclopedia of Biography. American edition, edited by* FRANCIS L. HAWKS, D. D., LL. D. New York: D. Appleton & Co., 1856. Large 8vo. pp. 1,058.

This work is a re-publication of the English Cyclopedia edited by Rich, with the addition of a large amount of matter pertaining to Americans by Dr. Hawks. We have had occasion to consult it, and with a good degree of satisfaction. It will prove a valuable acquisition to the Teachers' Books of Reference as well as to the library of its general reader.

3.—*English Grammar. The English Language in its elements and forms, with a History of its origin and development, designed for use in Colleges and Schools. Revised and enlarged by* WILLIAM C. FOWLER, New York; Harper & Brothers, 1855. 8vo. pp. 754.

Prof. Fowler has made a valuable contribution to the department of English Grammar in this philosophical treatise. We know of no better text-book for our Colleges and higher Seminaries of learning, or for the private student of the English language in its history and present developement. It will be found a very interesting book even to the general reader.

4.—*The Microscope and its Revelations.* By WILLIAM B. CARPENTER, M. D., F. R. S., F. G. S., *etc., etc., with an Appendix containing the applications of the Microscope to Clinical Medicine, etc.* By FRANCIS GURNEY SMITH, M. D. *Four hundred and thirty-four engravings on wood.* Philadelphia: Blanchard & Lea, 1856. 8vo. pp. 724.

The author of this valuable treatise has achieved a high reputation as a Lecturer and Teacher in the London University, and as a philosophical and practical writer on subjects of physiology in all its departments. We have consulted no treatise on the revelations of the microscope with so much satisfaction, as this of Dr. Carpenter; and the American scholar is under great obligations to Blanchard & Lea, for bringing out an edition of the English work, with artistic illustrations in such fine style.

5.—*An Atlas of Classical Geography. Constructed by* WILLIAM HUGHES, *and edited by* GEORGE LONG, *with a sketch of ancient geography, and other editions, by the American editor, containing fifty-two maps and plans on twenty-six plates, with an Index of places;* Philadelphia: Blanchard and Lea, 1856. 8vo.

The title-page gives a good idea of the entire contents of the book. The maps are clearly drawn, and some of them have an interest quite new; *e. g.* that showing

the ideas which the ancients had of the world at various intervals, from Homer to Ptolemy. The topographical plans of ancient places, battles and marches, will also convey new information to many readers, and will form a very enlightening adjunct to classical reading and study. Prof. Long, was for a short period connected with the University of Virginia, having been invited to that post by Mr. Jefferson. The classical scholarship of this country sustained a great loss by his return to England. Mr. Hughes has a deservedly high reputation for the accuracy and beauty of his delineations of maps. This Atlas is a valuable contribution to our helps to classical scholarship, and to all libraries of reference.

6.—*The Physical Geography of the Sea.* By M. F. MAURY, LL. D., Lieut., U. S. N; New York: Harper & Brothers, 1855. 8vo. pp. 274.

This volume by Lieut. Maury, contains the least technical and most widely interesting statements of discoveries and conclusions in the new science which the author has inaugurated, and already carried far towards substantial completeness. It is profoundly interesting, as a monument both of wise and persevering individual effort, and of the present condition of the grand and magnificently useful science of which it speaks.

7.—*Elements of Physical and Political Geography. Designed as a text-book for schools and academies.* By CORNELIUS S. CARTÉE, A. M.; Boston: Hickling, Swan & Brown, 1855. 12mo. pp. 342.

A School Atlas of Physical Geography, compiled from A. Keith Johnston, Milner & Petermann. Designed to Accompany Cartée's "Elements of Physical Geography." By C. S. CARTÉE, A. M.; Boston: Hickling, Swan & Brown, 1856. 8vo. thirteen maps.

This volume contains a compendium of much matter usually contained in school geographies, here named Political Geography; and as introductory to it, a system of Physical Geography, both as to the whole earth, and as to the special features of each of the "grand divisions." The Atlas, a separate work, consists of various maps mainly illustrative of the physical section of the book, prepared from the best sources; and very clearly and handsomely engraved.

8.—*Outlines of Physical Geography.* By GEORGE W. FITCH; New York: J. H. Colton & Co. 12mo. pp. 223.

Seasonable notice is taken, in the preface of this book, of the want of text-books and instruction in the peculiar classification and generalizations, which constitute Physical Geography. It is necessary, of course, to acquire the mass of detail which makes up the usual geography of schools; but it is no less necessary, at least for advanced classes, to acquire the notions respecting the distribution of land and water, the operations of water, wind and fire, the arrangements of Flora and Fauna, which in the hands of Humboldt and other physicists, have added so much of value, thoroughness and interest, to our knowledge of the earth and our power over its masses and forces.

The present volume contains a body of information, so digested and arranged as to render it available for the higher classes of schools and academies; who cannot fail, if the book is assisted by the collateral facts and comments which an intelligent teacher can supply, to find at once instruction, interest and amusement, in the study.

9.—*The Geography of Nature; or, The World as it is.* By M. VULLIET. *Translated from the French, by a lady.* Boston: Hickling, Swan & Brown, 1856 12mo. pp. 611.

A compact and extensive mass of information as to nations, manners, the

animal and vegetable world, and the various facts and phenomena of in-organic nature, the mass of which is arranged under a compound classification partly by countries and partly by natural territorial divisions.

10.—*A System of Physical Geography. To which is added a Treatise on the Physical Geography of the United States.* By D. M. WARREN; Philadelphia: H. Cowperthwait & Co., 1856. 4to. pp. 92.

This work, in the common and convenient school atlas form, contains an outline of physical geography, compiled from the latest and highest European and American authorities, with many illustrations, and several valuable maps.

11.—*Physical Geography, for Families and Schools, by* R. M. TORNLIN. *Revised with additions, by* WILLIAM L. GAGE, Boston and Cambridge: JAMES MUNROE & Co. 1855. 12 mo. pp. 159.

This is a short compend of the chief facts in the various departments of Physical Geography, intended for beginners in the study.

12.—*The Recent Progress of Astronomy; especially in the United States.* By ELIAS LOOMIS, LL. D. Third edition, mostly re-written and enlarged; New York: Harper & Brothers, 1856. 12 mo. pp. 396.

A plain and succinct statement of recent astronomical discovery, together with short and cautious discussions of conclusions based upon them. The work contains also an account of astronomical observatories, and of gentlemen now engaged in making optical instruments—within the United States. It is an interesting and useful volume for the general reader and for school and village libraries.

13.—*Principles of Chemistry.* By JOHN A. PORTER, M. D. Professor in Yale College. 12 mo. N. Y. A. S. BARNES & Co. 1856.

The position held by the author of this elementary treatise as Professor of Agricultural and Organic Chemistry in Yale College, is a sufficient guaranty for the scientific character of his work. We have examined it with reference to its qualities as a school-book, its adaptation to the wants of beginners in the study of a science which to many even of college students is as obscure in nomenclature and symbols as it is brilliant in demonstrations. As a text-book for the higher classes in schools and academies we regard the work as deserving of high praise. The language is clear and concise, the illustrations are well chosen and the arrangement of topics is natural and methodic. While the technical terms of Chemistry are explained sufficiently to introduce the student to more extended treatises in the science, they are not employed so much as to impede his progress at the outset of his course. For example: sulphate of soda is called by this name in the body of the work and not by its symbol KO, SO, although in ten pages (129–139) the laws of combination, the symbols, and the doctrine of equivalents are clearly made known, and in an Appendix the chemical formulas are given for all substances before referred to. As an illustration of the authors style in presenting the more difficult parts of his subject, the first chapter of the Organic Chemistry may be cited in which the theory of substitutions is propounded. The more recent applications of Chemistry to Art in the Daguerreotype, the Telegraph, and the manufacture of Aluminium are well treated of, and in general the applications of Chemistry to Agriculture and other useful arts have been borne in mind throughout the entire work.

The volume is recommended to the examination of all who are teachers in this important branch of study.

14.—*A Treatise on English Punctuation; designed for letter-writers, authors,*

printers and correctors of the press; and for the use of schools and academies. By JOHN WILSON. Seventh edition, Boston; Crosby, Nichols & Co. 1856. 12 mo. pp. 334.

Mr. Wilson has, we believe, enjoyed a large experience in the actual practice of the rules which he has embodied in this clear and well arranged little treatise. He proceeds, correctly, upon the ground that punctuation is essentially grammatical and not rhetorical; addressed to the mind of the reader through his eye, not intended to instruct a speaker in his pauses.

There is an appendix, containing a variety of useful information upon capitalization, italics, and the nomenclature of printers; lists of abbreviations and of various signs and characters; and instructions, both interesting and valuable, upon the business which in these days of book-making is becoming so very general, of preparing "copy" for printing.

15.—*Exercises on Words. Designed as a course of practice on the rudiments of Grammar and Rhetoric.* By WILLIAM RUSSELL, Boston: Whitemore, Niles & Hall, 1856. 12 mo. pp. 225.

Mr. Russell, so well and widely known as a teacher of Elocution and Rhetoric, and as editor of the first series of the American Journal of Education, has given in this manual an outline of the methods pursued by him during thirty-six years of successful instruction in those studies. Mr. R. certainly cannot be accused of hastening into print. A book which is the result of a course of experiments so long and so well pursued by so capable an investigator, could scarcely fail to possess considerable value; and that this work has both value and vitality, is further indicated by the author's admonition that its usefulness requires active co-operation from teacher and student. This is the advice of a thinker and teacher; not of a book-maker.

16.—*Elementary Moral lessons for Schools and Families.* By M. F. COWDERY, Sandusky, Ohio; Bell, Cook & Co. 12 mo. pp. 224.

This little volume is one of a series, intended to meet the want of actual training in social and moral duties; and constructed upon the principle that there should be both precept and example, (i. e., statement of principles and exemplifying by illustrations) as much in morals as in mathematics.

It contains thirty-one chapters, each headed with the pithy maxim whose lesson is to be taught, and furnished with a narrative in point, and a number of questions for enforcement, and explanation and application to which the teacher is to add at his discretion. The anecdotes and other matter are mostly quite new and interesting, and the tone and spirit of the book unexceptionable. It is, indeed, an able and valuable essay in a department of training too much neglected, yet certainly not less important than any, and must prove a very efficient auxiliary and stimulus, not only to scholars, but to teachers also. The author has had a long and large experience in the instruction, administration, and improvement of public schools.

17.—*Elements of Moral Philosophy.* By HUBBARD WINSLOW, New York; D. Appleton & Co., 1856. 12 mo. pp. 480.

This class-book is arranged upon a somewhat new but distinct plan including, *First*, the analysis of the mental powers concerned in moral action; *Second*, the analysis of the methods and directions of that action; *Third*, a summary of the theory of right moral action; and *Fourth*, a code of the chief practical moral duties incumbent upon those in the various human relations. Its basis of procedure is chiefly the Scotch philosophy of Stewart, Brown & Reid, with some reference to Hamilton.

18.—*Outlines of Moral Science.* By ARCHIBALD ALEXANDER, D. D. New York; Charles Scribner, 1855. 12 mo. pp. 272.

Dr. Alexander's last illness prevented him from adding the final corrections to this manual. Yet, with no noticeable exceptions, it is entirely his composition; and presents in a compact elementary form the system of ethics, which was the result of his half century of study and teaching in that and its cognate fields of philosophical and religious knowledge.

19.—*The Principles of Metaphysics and Ethical Science applied to the Evidences of Religion.* By FRANCIS BOWEN, A. M., Boston; Hickling, Swan & Brown, 1855. 12 mo. pp. 487.

Prof. Bowen has prepared this volume, chiefly as a text-book for Colleges, from the substance of lectures delivered by him before the Lowell Association. It is an examination of the argument for Christianity from philosophical premises; commencing with the statement of the distinction between physical and metaphysical science, and concluding with the grouping together of the various evidences of a Revelation.

20.—*Seed-grain for thought and Discussion. A Compilation.* By MRS. ANNA C. LOWELL, Boston; Ticknor & Fields, 1856. 2 vol., 12 mo. pp. 360 each.

This is a systematized collection of maxims, and short statements of theory or belief, upon life and morals; sometimes from authors of strong practical character as Jeremy Taylor, oftener from the free nervous thinkers of the modern English school, as Kingsley, Ruskin, Helps, Martineau and Sterling; and oftener yet from somewhat transcendental, reflective, or affectional writers like DeSales, Fenelon, Madame Guyon, Upham, W. Von Humboldt, &c. As a repository of suggestions upon which to base conversational discussions for the higher classes especially of female schools, the work must possess considerable value in the hands of a teacher competent to the requisite oral explanation and comment.

21.—*A Collection of College words and Customs.* By B. H. HALL. Revised and enlarged edition, Cambridge; John Bartlett. 12 mo. pp. 508.

This is an entertaining and curious dictionary of the sometimes forcibly figurative slang, and fantastic customs, in which the exuberant spirits of undergraduates find a harmless and comical vent. It is surprisingly full; and must interest all whose college reminiscences are lively or pleasant, and is withal worthy of notice as a contribution to the study of language and the nomenclature of education.

22.—*Elements of Agricultural Chemistry and Geology.* By JAMES F. W. JOHNSTON, M. A. &c. *With a complete index and American Preface.* By SIMON BROWN, New York; C. M. Saxton & Co. 1856. 12 mo. pp. 381.

A comprehensive explanation of the chemistry and geology of the various materials used in agriculture, with the addition of many facts and statistics interesting and valuable, to any farmer intelligent and pains-taking enough to understand and study them.

23.—*First lessons in Philosophy; or, the Science of familiar things.* By THOMAS TATE, F. R. S. A. *American edition revised and improved.* By C. S. CARTÉE, A. M. Boston; Hickling, Swan & Brown, 1856. 12 mo. pp. 252.

An Elementary course of natural and experimental philosophy, for the use of High Schools and Academies. By T. TATE, F. R. A. S. *American edition revised and improved.* By C. S. CARTÉE, A. M. Boston; Hickling, Swan & Brown, 1856. 12 mo. pp. 528.

Professor Tate has long been familiarly and favorably known as a practical

teacher in the Battersea Normal School and the Kneller Hall Training College, and as one of the editors of the Educational Expositor, now merged in the English Journal of Education. He has recently received a retiring pension from the English government.

The first of the treatises is a condensed explanation of the fundamental principles and truths of Chemistry, Mechanics and Natural Philosophy, illustrated with many examples and experiments, often chosen from amongst instances familiar to all.

The second treatise is intended to follow the above; being a fuller and more extended course of lessons, by the same author, of like character, and in the same departments of natural science.

24.—*Physiology and Calisthenics. For Schools and Families.* By CATHARINE E. BEECHER, New York; Harper & Brothers, 1856. 16 mo. pp. 250.

Containing a system of school physiology, prepared with a careful avoidance of unnecessary technics, and followed by the plates and directions for a course of calisthenics. There is also a variety of useful general information on the subject of preserving health.

25.—*Calisthenics; or the Elements of bodily culture on Pestalozzian principles; a contribution to practical education.* By HENRY DELASPEE, London; Dalton & Co., 58 Holborn Hill. 170 pages of letter press, and 137 plates, with 2,000 drawings.

We procured a copy of this book from Appleton & Co., New York, because we saw at a glance through its numerous illustrations, that it was a systematic presentation of a system of in-door, and out-of-door exercises for children, as well as for youth and adults which we had tried with advantage under the instruction of Prof. E. Langdon—a teacher in this department whom we take this occasion to commend to individuals of sedentary habits, as well as to teachers of youth, and especially to students in college, and to the principals of schools for girls. The author, M. Laspee, claims that his book unfolds a system of bodily culture, analagous to that which Pestalozzi adopted for the development of the mental faculties; and without presenting his argument here, or his system in detail, we have no hesitation in saying, that the method prescribed and illustrated in this work by more than 2000 figures, are the best we have seen tried, or rather the best which we have tried, in our own person, and seen tried with young children, for the safe and varied exercise of muscles and joints which are too much out of use in men or children of sedentary habits. This book is altogether the best contribution we have seen made to bodily culture. We hope the author or publisher will bring out an edition in this country. The book is sold by Appleton & Co., for $6,00.

26.—*The Teacher's Guide to Illustration; a manual to accompany Holbrook's School Apparatus.* By F. C. BROWNELL, Hartford; Holbrook School Apparatus Co., 1856. 12 mo. pp. 156.

A very clear and well arranged collection of directions and questions with answers, showing the methods of using Holbrook's School Apparatus for illustrating to the scholar's eye the principles of natural science and mathematics. The value of visible illustrations as a means of permanently fixing knowledge in children's minds can hardly be overrated; and we know of no auxiliary apparatus likely to be so cheaply and widely useful as Holbrook's. It is sold not only by the set, but by the less or greater number of pieces; and is really so inexpensive as to be within easy reach of every school.

27.—*First lessons in the History of the United States. Compiled for the use of Common Schools.* By a PRACTICAL TEACHER, Boston: Hickling, Swan & Brown, 1856. 12 mo. pp. 196.

A plainly stated summary of our national history, in the latter part of which the successive administrations are narrated in separate chapters; with a set of questions, and a chronological table.

28.—*First Lessons, in English Composition.* By MRS. SPENCER SMITH Boston: Hickling, Swan & Brown, 1856. 12 mo. pp. 131.

This is an elementary book, intended to habituate young scholars to correctness in the use of words and the preparation of manuscript. Short lists of words are given, to be written on the slate and afterwards to be inserted in their proper places in the blanks left in sentences immediately following, which are also to be written as filled, with due attention to capitals, paragraphing, &c.

29.—*A First Class Reader; consisting of extracts in prose and verse, with biographical and critical notices of the authors.* By G. S. HILLARD. Boston: Hickling, Swan & Brown, 1856. 12 mo. pp. 504.

This collection is made with the best taste, and judgment, from the best English and American authors, expressly for reading in the advanced classes of public and private schools. The notices of the various authors are carefully compiled, and contain much information.

30.—*The Constitutional Text-book: A practical and familiar exposition of the Constitution of the United States, for the use of Schools, Academies and Colleges.* By TRUMAN SHEPPARD. Philadelphia: Childs & Peterson, 1853. 12 mo. pp. 324.

Few understand the excessive ignorance as to the precise provisions of the Constitution, and also of the United States and State Statutes, which prevails amongst the very large majority of our people. The present volume is intended particularly to remedy this most unfreeman-like defect, by furnishing an explanation of the Constitution suitable for supplying the necessary knowledge to the higher schools and seminaries of learning.

31.—*Elements of Scientific Agriculture.* By J. P. NORTON, Professor of Scientific Agriculture in Yale College. C. M. Saxton & Co., N. Y., 1855. 208 pages, 12 mo.

The publishers have issued the 10th thousand of this admirable work, the production of a scholar of rare abilities, and still rarer powers of adapting his great acquisitions to the wants of practical men. His early death is still widely lamented, but this volume and the various essays which at different times appeared from his pen, will for many years to come, remain as standard guides to those who are engaged in the honorable pursuits of agriculture. No one will be prejudiced against "Book-Farming" who reads and practices the instructions of this volume.

32.—*An Historical Atlas.* By J. E. WORCESTER, Boston: Brown, Taggart & Chase, 1856.

We welcome a new issue of this admirable work, as a valuable help to the private student, to the editor, to the teacher, and the general reader. It embraces twelve charts, representing Universal History, Mythology, Sacred History, Ancient and Modern Chronology, the Sovereigns of all Nations, English, French, German and American History, and Biography. For exact information and ready reference, we know nothing of the kind, for the price, or within the same compass, half so valuable.

33.—*The British Essayists: with Prefaces, Historical and Biographical.* By A. CHALMERS, F. S. A., Boston: Little, Brown & Co.

We have received from the publishers the TATLER, 4 Vols., and SPECTATOR 8 vols., of this beautiful library edition of the British Essayists and for paper, type, and accuracy, as well as cheapness, we can recommend the series for private and public libraries.

34.—*Rise of the Dutch Republic.* By JOHN LOTHROP MOTLEY, 3 Vols. 8 mo. N. Y.: Harper & Brothers. 1856.

Few periods in history are more interesting to republicans everywhere, than the time of "the great agony" through which the commonwealth of Holland was ushered into life. No scholar needs to be informed of the importance of Mr. Motleys undertaking. To depict in living colors the exciting events which occurred in the Netherlands during the 16th century, to analyze the characters which "sowed the wind" and "reaped the whirlwind," to philosophize upon the relations of those great commotions to the future and the past was a worthy theme. The execution of the work has been equal to the task. Graphic in its delineations, accurate in its judgments and profound in its reflections, this record of the republic of the Lowlands will hold the attention of every reader and reward the examination of every scholar.

Mr. Motleys account of the origin of the University of Leyden has already been alluded to in our pages. His account of the state of education at the beginning of the 16th century and particularly his description of those quaint Mechanics Institutes, the Guilds of Rhetoric, which were once so important establishments, we purpose hereafter to transcribe.

35.—*Cyclopedia of American Literature; embracing personal and critical notices of authors, and selections from their writings, from the earliest period to the present day; with portraits, autography, and other illustrations.* By EVERET A. DUYCKINCK and GEORGE L. DUYCKINCK. 2 vols. royal octavo; 676x 780 pages. New York: Charles Scribner. 1856.

This comprehensive survey of the whole field of American literature is a very valuable contribution to both public and private libraries; and is highly creditable to the research, accuracy and taste of the editors. It would be strange if there were not errors of omission and commission in the execution of such a work—names introduced of authors and works, which the world has willingly let die, and others omitted, which have contributed to the permanent civilization of the country and the race. But such errors may be corrected in subsequent editions, and whether corrected or not, the work has a permanent value, and will have a wide circulation.

36.—*English Traits.* By RALPH W. EMERSON, Boston: Phillips, Sampson & Co., 1856. 12 mo. 312 pages.

Mr. Emerson visited England first in 1833, and again by invitation of the Mechanics Institutes of Lancashire and Yorkshire in 1847. His observations and reflections at both these times are agreeably and pointedly stated in nineteen chapters, arrayed under such titles as Land, Race, Manners, Truth, Wealth, The Times, Aristocracy, &c. His chapter on universities, we shall copy in our next number.

37.—*Memorials of his Time.* By HENRY COCKBURN, New York: D. Appleton & Co., 1856. 12 mo. pp. 442.

This charming picture of men and manners in the capitol of Scotland in its brightest days, affords some extracts descriptive of the High School, the University, and the teachers and professors of that period, which we hope to transfer to our pages.

XV. QUESTIONS AND ANSWERS.

We are in the way of receiving frequent letters asking for information respecting educational matters, which we are ever ready to give as far as our knowledge, and engagements will enable us to do. As in some instances the information sought is of general interest, or at least may be of use to other inquirers, we have concluded to open a department for the publication of questions and answers on educational topics in this Journal—to which we invite contributions from all interested.

QUESTION 1. What are the best authorities for the History of the Universities of Europe, and especially of Academical Degrees?

ANSWER.—The best compendium on the subject which we own, is Prof. Malden's work, entitled "ON THE ORIGIN OF UNIVERSITIES AND ACADEMICAL DEGREES. London: John Taylor. 1835." Prof. Malden refers to the following authorities.

MEINER'S HISTORY OF THE UNIVERSITIES OF EUROPE. (Geschichte der Enstehung und Entwickelung der Hohen Schulen unsers Erdtheils; Gottingen. 1805.)

CONRINGII DE ANTIQUITATIBUS ACADEMICIS DISSERTATIONES SEPTEM CUM SUPPLEMENTIS. Conringius was a professor in the University of Helmestad, founded by Julius Duke of Brunswick and Lunenburg in 1576. His dissertations were originally delivered in the form of orations, on occasions of academical solemnity. The second edition, which he published with the supplements, bears the date 1674.

IO. CHRIST. ITTERI MOENO-FRANCOFURTENSIS DE HONORIBUS SIVE GRADIBUS ACADEMICIS LIBER. The first edition of this work was a small duodecimo; the second a quarto. The latter bears the date 1698. In almost all matters of antiquity, Itter relies upon the authority of Conringius. In the Appendix to the second edition is Erici Mauritü De Honorum Academicorum Origine Oratio, which contains a clear summary of the results of the investigations of Conringius.

HEUMANNI BIBLIOTHECA HISTORICA ACADEMICA, appended to the Goettingen edition of Conringius. In this work is a short summary of the contents of Du Boullay's History of the University of Paris.

GESCHICHTE DES RÖMISCHEN RECHTS IM MITTEL ALTER, ETC. History of the Roman Law in the Middle Ages, by Frederic Charles von Savigny. The third volume of this work contains an account of the Ancient Universities of Europe, especially of Bologna.

For the English Universities:

DISCUSSIONS ON PHILOSOPHY AND LITERATURE, EDUCATION AND UNIVERSITY REFORM. By Sir William Hamilton: Harper & Brothers. 1853.

NEWMAN'S TRANSLATION OF HUBER'S ENGLISH UNIVERSITIES, 3 vols. London: Pickering. 1843.

REPORT OF CAMBRIDGE UNIVERSITY COMMISSION. 1852.

REPORT OF OXFORD UNIVERSITY COMMISSION. 1852.

REPORT OF SCOTLAND UNIVERSITIES COMMISSION. 1831.

REPORT OF DUBLIN UNIVERSITY COMMISSION. 1853.

BARNARD'S AMERICAN JOURNAL OF EDUCATION.

Circular.

With the number for December, 1856, the Second Volume, or First Year of the American Journal of Education, projected and conducted by the undersigned, is completed. Circumstances not anticipated at the outset, have changed somewhat the form of publication, but have not affected materially the character, or diminished the amount or value of the educational discussion and statistics given to his subscribers. The two volumes contain fifteen hundred pages in various type, or at least two thousand pages of the type and style originally adopted and circulated as a specimen of the work, together, with nine portraits on steel, and fifty-six illustrations on wood. The Contents of the seven numbers and the Index to the two volumes, are referred to as the best evidence of the range of discussion and information embraced in the plan.

Should the Journal be sustained by a liberal subscription list, and should the health of the present Editor admit of the requisite labor, the publication will be continued for a period of at least four years longer, or until the issue of ten volumes, conducted substantially on the plan of Volumes I. and II. It will be the aim and ambition of the undersigned, to include in the series, when completed, the history and condition of systems and institutions of public instruction in every civilized state, an account of the leading schools of every grade, and an analysis and discussion of the various agencies by which the education of the American people can be improved and perfected, together with the biography of eminent educators and teachers, and of benefactors and promoters of learning, science and literature, in our own and other countries.

HENRY BARNARD.

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☞ *Postage of the Journal, if* paid quarterly or annually in advance, is six cents per number. The Numbers will be sent to Subscribers, free of postage, on receiving twenty cents in addition to the subscription price.

December, 1856. F C. BROWNELL, Hartford, Conn.

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